# Grade 12 Global Issues

Citizenship and Sustainability

Manitoba

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# Contents

# Acknowledgements

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# Introduction

## Course Rationale

### State of the Planet

Although Earth is 4.6 billion years old, human beings have been around for just a small fraction of that time—about 250,000 years. In that time, somewhere between 60 and 110 billion people have lived on this planet, civilizations have come and gone, and Earth has continued to nourish and sustain life. Until recently, we have not paid a great deal of attention to the impact of human activity on the state of the planet, nor have we paid adequate attention to the needs of our fellow humans.

In recent years, people have watched with increasing concern as significant environmental changes have become more apparent. We are beginning to realize that these changes may be the result of human activity—and, even worse, that our future on Earth is no longer certain.

The 20th century was the beginning of global efforts to improve human quality of life by working toward collective social goals. For example, in 1948 the United Nations *Declaration of Universal Human Rights* marked a significant turning point in concern for the dignity of all human beings, and in the year 2000 the UN established the Millennium Development Goals to improve life for people across the globe.

Although some progress has been made, if we are to improve the human condition and sustain Earth for future generations, more work must be done. We cannot continue along the path we are on.

We need to change the way we live, reconnect to the natural world, develop an ethos based on ecological thinking and global concern, and teach our children to do the same.

In January 2016, the UN built on the success of the Millennium Development Goals by implementing the Sustainable Development Goals (SDGs), which address additional issues such as climate change, economic inequality, innovation, sustainable consumption, and peace and justice.

| Millennium Development Goals | Sustainable Development Goals |
| --- | --- |
| ■ Eradicate extreme poverty and hunger<br>■ Achieve universal primary education<br>■ Promote gender equality and empower women<br>■ Reduce child mortality<br>■ Improve maternal health<br>■ Combat HIV/AIDS, malaria, and other diseases<br>■ Ensure environmental sustainability<br>■ Develop a global partnership for development | ■ No poverty<br>■ Zero hunger<br>■ Good health and well-being<br>■ Quality education<br>■ Gender equality<br>■ Clean water and sanitation<br>■ Affordable and clean energy<br>■ Decent work and economic growth<br>■ Industry, innovation and infrastructure<br>■ Reduced inequalities<br>■ Sustainable cities and communities<br>■ Responsible consumption and production<br>■ Climate action<br>■ Life below water<br>■ Life on land<br>■ Peace, justice and strong institutions<br>■ Partnerships for the goals |
| Source: www.undp.org/mdg/ | Source: United Nations Development Program |

## Why Students Should Take this Course

Social studies examines human societies and the complex interactions among human beings living together in a shared world. This course provides a lens of ecological literacy through which students can study and understand the complex and often critical global issues that societies face today. Through this lens, students

- apply concepts related to sustainability
- learn about the interdependence of environmental, social, political, and economic systems
- develop competencies for thinking and acting as ecologically literate citizens committed to social justice

The overall purpose of this study is not to instill fear in the next generation, nor to make students feel guilty for problems that are the cumulative legacy of many generations of mistakes, recklessness, and, in some cases, deliberate neglect or exploitation. Rather, the intent is to help students understand that human societies and institutions can and should be renewed, beginning with matters of personal lifestyle, and extending through to collective, large-scale social change. The role of education in this change is vital—hence the importance of this course both as an instrument of critical understanding (seeking the truth) and as an instrument of hope (seeking to create a better future).

## The Role of Education in Social Change

Education plays a crucial role in motivating and informing both personal and social change. With this in mind, this course is designed to help students acquire a critical awareness about global issues, to alert them to the need to be vigilant about the consequences of their decisions and actions, and to provide them with opportunities to take action for positive change.

This course consolidates learning across the disciplines and helps students develop competencies as citizens who are mindful of their place in nature and in society and who are willing to work together toward a sustainable future. The pedagogical approach is based on the principles of active democratic citizenship, ecological literacy, critical media literacy, and ethical decision making. Throughout the course, students examine the social, political, environmental, and economic impact of emerging issues on quality of life—locally, nationally, and globally. They are provided with opportunities to engage in inquiry, active experiential learning, dialogue, collaboration, reflection, and decision making. With a view to transforming life practices, this course includes the planning and implementation of a school or community-based action-research project.

> "Education is the point at which we decide whether we love the world enough to assume responsibility for it, and by the same token save it from ruin which except for renewal, except for the coming of the new and the young, would be inevitable. And education, too, is where we decide whether we love our children enough not to expel them from our world and leave them to their own devices, not to strike from their hands their chance of undertaking something new, something unforeseen by us, but to prepare them in advance for the task of renewing a common world."
>
> – Hannah Arendt

# Course Overview

According to the report to UNESCO of the International Commission on Education for the 21st Century (2010), education must be organized around four fundamental types of learning for all people to be empowered as lifelong learners, capable of contributing to their communities now and in the future:

- learning to know
- learning to do
- learning to be
- learning to live together
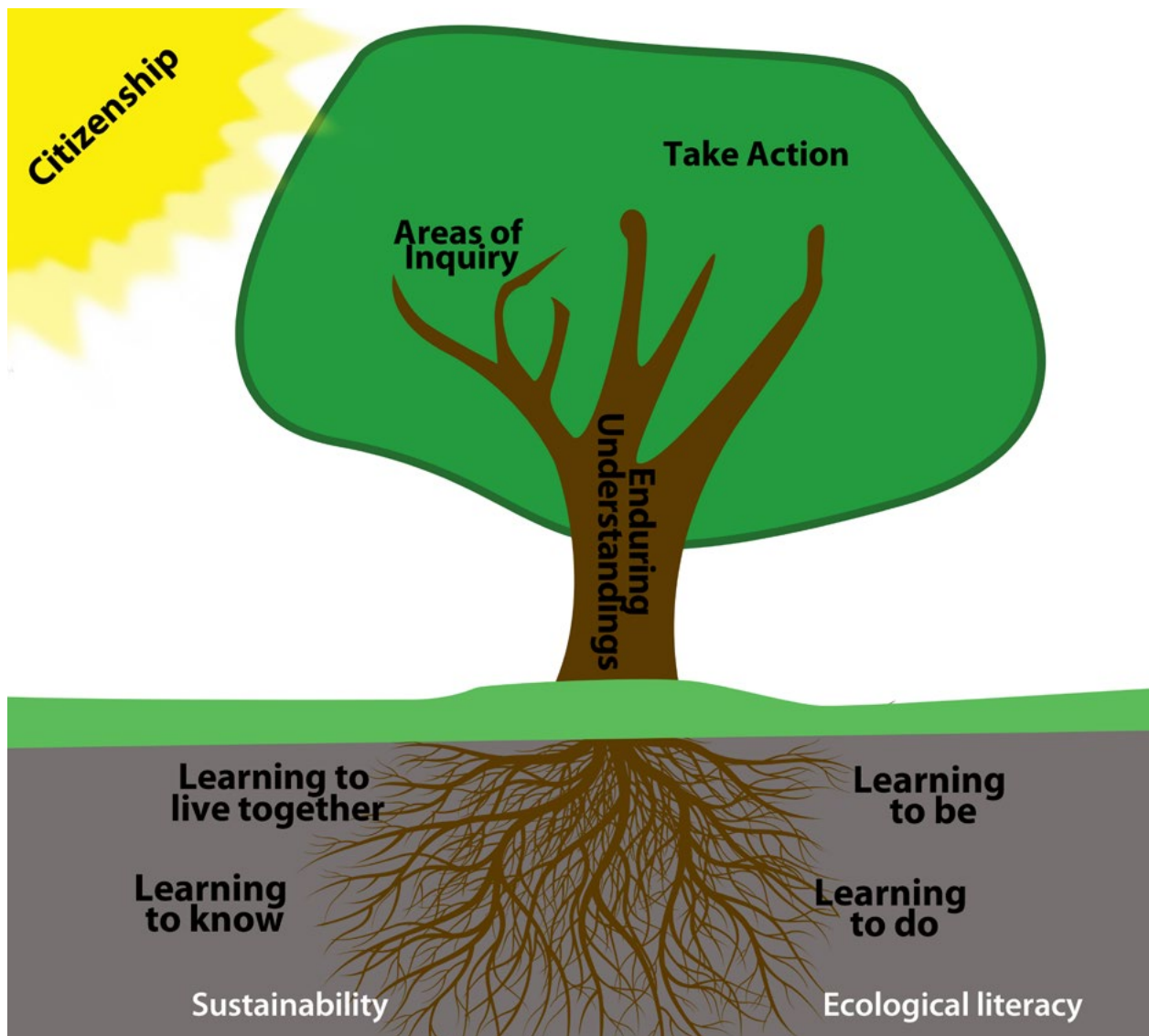
# Grade 12 Global Issues: Citizenship and Sustainability

## Learning to know

Acquire knowledge and understanding, and think critically about our complex and changing world.

- Develop ecological literacy through an understanding of the interdependence of society, the environment, and the economy.
- Be open to new ideas and divergent thinking.
- Seek knowledge from diverse sources and perspectives.
- Use creative, critical, and systems thinking to address complex questions.
- Conduct focused in-depth inquiry.
- Explore alternative approaches to issues without fear of challenging the status quo.
- Engage in long-term thinking, and articulate a vision for a sustainable future.

## Learning to do

Learn to participate effectively in local, national, and global communities.

- Act responsibly towards self, others, and the environment.
- Be willing to let go and give back, and to make changes so as to live sustainably.
- Be an empowered and committed agent of change, willing to take a stand and engage in action for a sustainable future.
- Cultivate and share personal skills, talents, and gifts.
- Practise helpfulness and share hopefulness.
- Demonstrate care and respect through language and actions.
- Apply intuitive and innovative thinking and decision-making skills.
- Plan informed courses of action.

## Learning to be

Build self-knowledge and be conscious of connections to nature and society.

- Appreciate the natural world and live by ecological principles.
- Be willing to contribute to the present and future well-being of all.
- Be introspective, reflective, and self-aware.
- Acquire a strong sense of self-knowledge and personal identity.
- Accept and express multiple identities, allegiances, and influences.
- Know how to be and how to live with others in shared spaces.

## Learning to live together

Learn to live peacefully with others and to care for our common homeland.

- Respect Earth as a shared commons made up of complex and interconnected systems.
- Recognize the solidarity of all human beings and their dependence upon the planet.
- Respect diversity and value equity.
- Engage in intercultural dialogue and cultivate a widening circle of empathy and concern.
- Respect the inherent, inalienable, and universal nature of human rights.
- Be willing to collaborate, lead, and support.
- Resolve conflicts peacefully.

## Enduring Understandings

- Our ecological footprint is exceeding Earth's capacity to sustain biodiversity and human life.
- Our decisions and actions matter; they have social, environmental, economic, and political consequences.
- Individuals, groups, governments, and corporations have the power to effect change and the responsibility to contribute to a sustainable future.
- The media do not provide neutral reflections of reality; they affect our decisions and actions.
- A global economic system that depends upon and perpetuates unrestrained consumerism is unsustainable.
- Economic and technological development has contributed greatly to society, but often with harmful human and environmental consequences.
- Indigenous knowledge and world views offer alternatives to prevailing assumptions about how to live with one another within the environment.
- Political systems distribute power, privilege, and wealth in different ways, some more justly than others.
- A just society respects human diversity and recognizes universal, equal, and inalienable human rights.
- There is no *them* or *over there*: we all belong to the human species, our concerns are interdependent, and we are part of the natural world.

## Take Action

- Minimize your ecological footprint, and live more responsibly (e.g., use fewer non-renewable resources; reduce waste; limit dependence on petrochemicals; seek sustainable and ethical food choices...).
- Recognize the consequences of your decisions, and take action as a citizen for a sustainable and just future for all.
- Be an ethical decision-maker, take a stand to support quality of life for all, and challenge the unethical and the unsustainable.
- Evaluate the purposes of media, critically question information sources and our responses to media, and make decisions accordingly.
- Make consumption decisions that follow ecological and ethical principles, and be respectful of nature, self, and society in your actions.
- Assess the relative value and sustainability of economic and technological developments in order to make informed decisions.
- Explore indigenous perspectives to extend the boundaries of the familiar and to challenge assumptions and practices.
- Support democratic citizenship and be vigilant about political decisions that affect social, economic, and environmental conditions.
- Be committed to universal human rights, regardless of gender, age, physical ability, sexual orientation, language, culture, religion, political beliefs, ethnicity, national or social origin, or status (e.g., property, birth, economic...).
- Uphold the value of every person and strive to build community; act in ways that acknowledge human solidarity and the complexity and interrelatedness of all life.

Media * Consumerism * Environment * Poverty, Wealth, and Power * Indigenous Peoples * Peace and Conflict
Oppression and Genocide * Health and Biotechnology * Gender Politics * Social Justice and Human Rights

# Pillars of Learning

The overarching goal of this course is the development of active democratic citizenship based on these four pillars, with a particular focus on ecological literacy and social justice. The following descriptors summarize the key competencies this course seeks to develop, organized under the four UNESCO pillars of learning.

## Learning to know

*Acquire knowledge and understanding, and think critically about our complex and changing world.*

■ Develop ecological literacy through an understanding of the interdependence of society, the environment, and the economy.

■ Be open to new ideas and divergent thinking.

■ Seek knowledge from diverse sources and perspectives.

■ Use creative, critical, and systems thinking to address complex questions.

■ Conduct focused in-depth inquiry.

■ Explore alternative approaches to issues without fear of challenging the status quo.

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## Learning to do

*Learn to participate effectively in local, national, and global communities.*

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■ Be willing to let go and give back, and to make changes so as to live sustainably.

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# Take Action

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- Uphold the value of every person and strive to build community; act in ways that acknowledge human solidarity and the complexity and interrelatedness of all life.

# Citizenship as a Core Concept

Citizenship is the core concept of the Manitoba social studies curriculum from Kindergarten to Grade 12. Citizenship is fundamental to living in a pluralistic, democratic society and our complex and interdependent world. Social studies, as the study of people in relation to each other and the world in which they live, plays a particularly important role in education for citizenship.

Education for citizenship is not restricted to learning facts about Canadian society and the world. It involves more than conforming to the dominant world view about the meaning and implications of citizenship. Learners—students and teachers alike—are connected to diverse cultural, social, and interest groups in which a wide range of approaches to citizenship and civic engagement may coexist or even conflict. In order to build competencies as active democratic citizens, learners need to consider how their world view is shaped and think critically about the many factors that influence their decisions and actions. As students examine the issues of today's world, it is particularly important that they acquire ecological literacy and a sense of environmental responsibility. It is also essential that they cultivate the ability to engage in dialogue across a range of diverse perspectives.

> **"Students acquire the knowledge, understanding, and competencies necessary to live as active democratic citizens engaged in their local, national, and global communities."**

*Grade 12 Global Issues: Citizenship and Sustainability* provides learners with opportunities to reflect upon diverse world views and perspectives as they conduct inquiry into issues that are crucial to living in a contemporary, connected, interdependent world. The course is intended not only to enrich learners' awareness of significant global issues, but to develop an ethos of concern as they come to understand their own capacities as contributing members of their local, national, and global communities. As they develop and practise the competencies of citizenship, students become able to envision and work toward a better future for all. They develop an ethos of engaged citizenship founded on the recognition of the importance of ecological principles as they address issues of social justice, economic sustainability, and quality of life on Earth.

## Active Democratic Citizenship

An ethos of active democratic citizenship involves developing a set of coherent ethical principles upon which to base decisions and practices. Citizenship is a fluid concept that is subject to continuing change over time: its meaning is often contested, and it is subject to interpretation and debate. In the course of history, citizenship has been used both as a means of strengthening human solidarity and a means of excluding or maltreating groups or individuals while conferring superior privilege and power to others. An ethos of active democratic citizenship in the contemporary world is often referred to as global citizenship, since it is based not on nationhood or ethno-cultural exclusivity, but on a fundamental acceptance of the inherent, equal, universal and inalienable rights of all human beings.

However, the concept of global citizenship is a fairly recent phenomenon, and it too is subject to interpretation and debate. While some thinkers embrace global citizenship as a vision for a sustainable future for all, others argue that citizenship can only truly exist within the bounds

of a nation state; hence, the idea of global citizenship is either pure idealism or an imposition of Western liberal democratic ideology.

Regardless, our students live in a world where national boundaries and identities may not have the same meaning as they did for previous generations, and students today more easily see themselves as citizens of an interconnected global community.

Active democratic citizenship involves developing a widening circle of empathy so as to come to a sense of solidarity with all humanity. It involves a recognition and acceptance of a collective responsibility for the continued economic and social well-being of humans while preserving the environmental integrity of the planet. This course has been designed to help students develop ecological literacy, so as to understand the relationships that link environmental, economic, social, and political well-being. As students become conscious of their competencies as citizens, they are empowered by a sense of personal efficacy to address issues facing today's world.

This learning process may be seen as a process of moving from a sense of *me* to *we*—from passive to active, from detachment to engagement, from status quo to change, from indifference to concern, and, practically speaking, from consumer to citizen. Active democratic citizenship is an ethos motivated by concern for humanity, society, the planet, and the future, and is activated by self-empowerment. Students will devote considerable time throughout this course to examining personal and social values and the factors that influence their decision making. This reflection will take place in the context of recognizing our collective human responsibility for the well-being of future generations and our individual responsibility to contribute to a better future.

# Sustainability

## Why Sustainability?

Sustainability is a complex topic, and there is considerable disagreement as to what the concept means as well as how it should be pursued as a goal for human societies.

Understanding the meaning and implications of the concept of sustainability is an essential part of active democratic citizenship in the contemporary world, particularly for citizens of a developed and wealthy country such as Canada. The concept of sustainability is intricately woven into an ethos of responsibility: responsibility to future generations, environmental responsibility, economic responsibility, social responsibility, political responsibility, and responsibility to persons and groups that have been excluded from quality of life, well-being, or human rights and dignity.

> "We cannot simply think of our survival; each new generation is responsible to ensure the survival of the seventh generation."
>
> *— Linda Clarkson, Vern Morrissette, and Gabriel Régallet*
>
> "Enough for everyone, forever."
>
> *— African Elder*

## A History of Sustainable Development

In 1987, the United Nations published the Brundtland Commission report entitled *Our Common Future*, a study of global concerns about social and economic inequities in the world. While acknowledging the importance of economic development, the report also declared an urgent need to adjust development to fit within the planet's ecological limits. It also introduced into international dialogue the term *sustainable development*, which it defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Global concern about the limits of development became more intense at the 1992 UN Conference on Environment and Development in Rio de Janeiro. Known as the "Earth Summit," it brought together a very large number of world leaders and resulted in two international agreements and a major action agenda on worldwide sustainable development. Since then, global interest in sustainability has continued to increase, and the concept has been broadened to include not only economic development, as determined by GDP (gross domestic product) and level of industrialization, but also social, political, and cultural elements that have an

> "As a social goal … sustainability is fraught with unresolved questions. Sustainable for how long: a generation, one century, a millennium, ten millennia? Sustainable at what level: individual households, local villages, major cities, entire nations, global economies? Sustainable for whom: all humans alive now, all humans who will ever live, all living beings at this time, all living beings that will ever live? Sustainable under what conditions: for contemporary transnational capitalism, for low-impact hunters and gatherers, for some space- faring global empire? Sustainable development for what: personal income, social complexity, gross national product, material frugality, individual consumption, ecological biodiversity?"
>
> *— Timothy Luke*

impact on quality of life, such as life expectancy and education. In other words, the sustainability initiatives became more concerned with ensuring quality of life for future generations and with the ecological limits of the planet to sustain this quality of life for all.
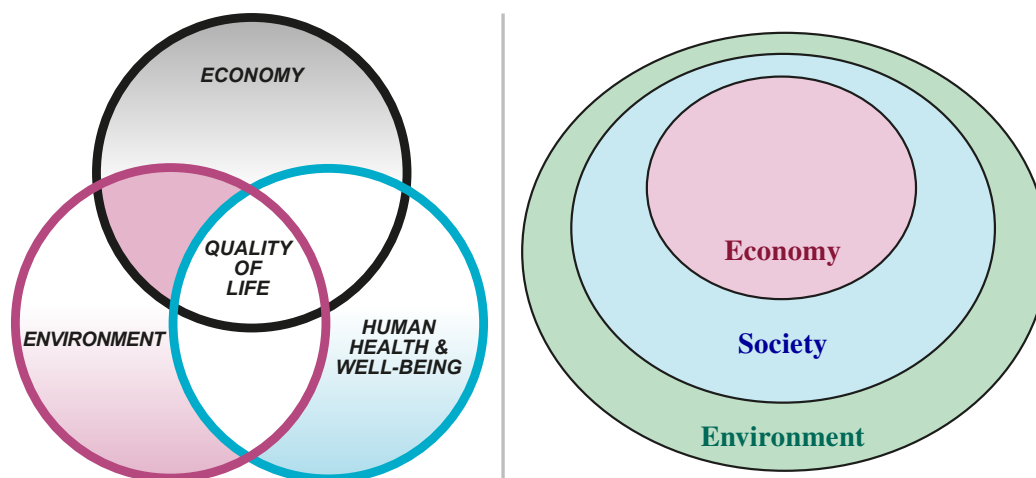


There are a variety of models and approaches to sustainable development, many of which are linked to political beliefs or ideologies. However, the generally accepted international view of sustainability is based upon the explicit recognition of the global interdependence of three fundamental components: environmental protection, economic well-being, and social justice. Education for a sustainable future, then, is education that empowers citizens to make actions and decisions that support continued quality of life for all human beings, now and in the future.

The engaged global citizen who seeks to be in, act in, collaborate in, and understand the world, therefore, needs to develop an enriched ecological literacy or a way of thinking that considers issues as part of an organic whole or a related set of interdependent systems. In the words of the UNESCO report *Educating for a Sustainable Future: A Transdisciplinary Vision for Concerted Action* (1997), this new ethos is global in nature and in scope, and recognizes the critical issues at stake in today's world.

> "Sustainability is a concept which combines post-modern pessimism about the domination of nature with almost Enlightenment optimism about the possibility to reform human institutions."
>
> **– Simon Dresner**

> "Perhaps we are beginning to move towards a new global ethic which transcends all other systems of allegiance and belief, which is rooted in a consciousness of the interrelatedness and sanctity of life. Would such a common ethic have the power to motivate us to modify our current dangerous course? There is obviously no ready answer to this question, except to say that without a moral and ethical foundation, sustainability is unlikely to become a reality. "
>
> **– UNESCO (1997)**

# Ecological Literacy

## What is Ecological Literacy?

Ecological literacy, or eco-literacy, is a term first used in the 1990s by American educator David W. Orr and physicist Fritjof Capra to introduce into educational practice the value and well-being of the Earth and its ecosystems. It is a way of thinking about the world in terms of its interdependent natural and human systems, including a consideration of the consequences of human actions and interactions within the natural context. Ecological literacy equips students with the knowledge and competencies necessary to address complex and urgent environmental issues in an integrated way, and enables them to help shape a sustainable society that does not undermine the ecosystems upon which it depends.

> "The great challenge of our time is to build and nurture sustainable communities— communities that are designed in such a way that their ways of life, businesses, economies, physical structures, and technologies do not interfere with nature's inherent ability to sustain life. The first step in this endeavor is to understand the principles of organization that ecosystems have developed to sustain the web of life. This understanding is what we call ecological literacy."
>
> – Fritjof Capra

**Note:** Students understand the natural systems that sustain life on Earth and apply the principles guiding ecosystems to help create sustainable human communities.

The following are core aspects of ecological literacy:

1. Principles of living systems
2. Design inspired by nature
3. Systems thinking
4. Ecological paradigm and the transition to sustainability
5. Collaboration, community building, and citizenship

## 1. Principles of living systems

According to Fritjof Capra, the ecological problems facing society are rooted in a lack of understanding of our place in the web of life. A key part of eco-literacy is reconnecting students to living systems—what educator Linda Booth Sweeney calls developing a "connected wisdom." Living systems are open, self-organizing systems that have the special characteristic of life and that interact with their environment through information and material-energy exchanges.

Examples of living systems include the human body, a forest, or a river, as well as human-created organizations such as communities or schools.

Connecting students to natural systems provides them with a deep sense of place and an understanding of their local environment. While students are immersed in experiences of the natural world as part of their classroom learning, they discover and study the principles guiding the functions of natural systems. Appendix A and Appendix B outline two different approaches to describing the principles of living systems, including their dynamic, complex, cyclical nature and their inherent interconnectedness. These principles come from the study of ecosystems and from a growing understanding of the way they have evolved over time. They also draw on the approaches of traditional and Indigenous societies, many of whom have thrived for centuries by applying these ecological principles.

## 2. Design inspired by nature

The guiding principles and characteristics of living systems serve as a basis for envisioning and designing sustainable communities. Beyond understanding natural systems, ecological literacy is about applying this understanding to the redesign of organizations, communities, businesses, and societies to align with ecological principles. The idea of "design inspired by nature" has become popular through concepts such as *biophilia, biomimicry,* or *biomimetics*, which involve examining and emulating natural models, systems, processes, and elements in order to solve human problems. According to David Orr, the goal of ecological design is to transform how humans act in the world to provide food, shelter, energy, materials, and seek their livelihood.

Ecological literacy asks what people know and how they should learn it, given the limits of Earth and its systems. It demands that human actions and design conform to how the world works as a biophysical system, and that societies be designed with future generations in mind.

## 3. Systems thinking

Ecological literacy is also guided by an understanding of systems, or systems thinking (sometimes called holistic or relational thinking). Because a system is a set of interdependent, interrelated parts that make up a complex and unified whole, it cannot be fully understood by analyzing its constituent parts. Ecological literacy involves applying a way of thinking that emphasizes relationships, connectedness, and context. For example, we can only understand a songbird by exploring both its own characteristics as well as its interactions with the watershed where it lives. Systems operate on multiple scales, with systems nested within systems. A watershed is a vibrant interplay among species from the tree to the bacteria in the soil. Systems thinking is necessary to understand the complex interdependence and often unpredictable dynamics of ecological systems, social systems, economic systems, and other systems on all levels. Ecologically literate students find connections in seemingly disjointed problems, perceive patterns instead of pieces, and design communities based on the interrelatedness of all life.

> "Science lessons about the water cycle or a food web are building blocks of ecological literacy because they reveal to the student how nature works. Likewise, a social studies unit on a human community (e.g., a family, neighbourhood, region, or country) or a geography lesson on resource management contribute to ecological literacy as soon as the dependence and impact of the human system/community/region on natural systems is acknowledged and explored as a vital part of the story."
>
> – Robert Steele (UNESCO)

Thinking systemically requires a number of "habits of mind," as outlined in Appendix C and Appendix D. These habits include seeing the whole of a system rather than snapshots of its parts, looking for patterns and connections, and uncovering and testing assumptions. This also involves a shift in perception, from a focus on parts to a focus on the whole or from discrete objects to relationships within a system. Two versions of these shifts in perception are captured in Appendix E and Appendix F and are at the heart of a broader shift in world view or paradigm.

## 4. Ecological paradigm and the transition to sustainability

Ecological literacy is partly aimed at triggering large-scale social change in how humans live on the planet. Teaching young people that we are part of the natural world is the basis for the shift to an ecological paradigm—a world view that places humans as embedded in ecological systems rather than perceived as separate, and that recognizes that there are global constraints to the amount of resources we can use and the amount of waste we can produce on a finite Earth. As Fritjof Capra (2012) notes, "in the coming decades, the survival of humanity will depend on our ecological literacy—our ability to understand the basic principles of ecology and to live accordingly." This shift to an ecological paradigm is part of a transition to sustainability—accounting for human well-being while substantially reducing poverty and conserving the planet's life support systems. Sustainability is not just about basic needs and human survival; sustainability is the process to create a vibrant society. Michael Stone of the Center for Ecological Literacy notes:

> *A truly sustainable community is alive — fresh, vital, evolving, diverse, dynamic. It supports the health and quality of life of present and future generations while living within the limits of its social and natural systems. It recognizes the need for justice, and for physical, emotional, intellectual, cultural, and spiritual sustenance.*

This is about the ethics guiding human society, including taking responsibility for the social and environmental consequences of our activities.

Daniel Goleman uses the term *ecological intelligence* to highlight the need for feedback about whether our activities are having a positive or negative impact on people and ecosystems. He makes the point that there is an urgent need for marketplace transparency and for greater human understanding of the ecological impacts of how we live. New information technologies provide a tool for assessing the sustainability of supply chains and the far-flung impacts of our choices. He notes that "we can, together, become more intelligent about the ecological impacts of how we live—and how ecological intelligence, combined with marketplace transparency, can create a mechanism for positive change." The exchange of information is only one aspect of this ecological intelligence. Goleman notes that we also need to draw on our social intelligence to coordinate and harmonize our efforts because of the complex global web of cause and effect.

> "The dialogue about sustainability is about a change in the human trajectory that will require us to rethink old assumptions and engage the large questions of the human condition that some presume to have been solved once and for all. Genuine sustainability, in other words, will come not from superficial changes but from a deeper process akin to humankind growing up to a fuller stature."
>
> **– David W. Orr**

> "Ecological intelligence allows us to comprehend systems in all their complexity, as well as the interplay between the natural and man-made worlds. But that understanding demands a vast store of knowledge, one so huge that no single brain can store it all. Each one of us needs the help of others to navigate the complexities of ecological intelligence. We need to collaborate."
>
> **– Daniel Goleman**

## 5. Collaboration, community building, and citizenship

Ecological literacy is about emphasizing collaboration and partnership as a hallmark of living systems and life. The ability to associate, create links, and draw on the collective distributed intelligence of many individuals is part of eco-literacy. Ultimately, sustainability is a community practice.

Ecologically literate students are also community builders and active citizens. An ecological education occurs both within the natural environment and in the local community where students can build relationships and apply their understanding in a real-world setting.

Ecoliteracy knowledge empowers students to help create a better society and make a difference. Studies have shown that combining civic engagement and ecological literacy creates leaders who are willing to participate as citizens in effecting positive change and engaging in creative solutions.

# Ecological Literacy in a Global Issues Course

The Center for Ecoliteracy suggests the following principles for the integration of ecological literacy:

- Ecological literacy is not an additional concept or subject to be added to the content of the course. It may be seen rather as a perspective or a way of thinking through which any selected topic or issue may be viewed.

- It is useful to focus on guiding fundamental questions, which may recur and open up conceptual links across disciplines (e.g., science, geography, anthropology, politics, history, the arts, sociology, health).

- The conceptual links that tie subjects together help make learning more effective, since they lead to learning that is more readily applicable to the real world.

- Taking a hopeful, proactive approach and designing learning activities that engage students in potential solutions are important when teaching about environmental issues.

## Core Competencies for Ecoliteracy

The Center for Ecoliteracy has developed a set of core competencies to help young people develop and live in sustainable communities. These competencies relate to the head (*learning to know*), the heart (*learning to be*), the hands (*learning to do*), and the spirit (*learning to live together*).

### Head (Cognitive)

- Approach issues and situations from a systems perspective
- Understand fundamental ecological principles
- Think critically, solve problems creatively, and apply knowledge to new situations
- Assess the impacts and ethical effects of human technologies and actions
- Envision the long-term consequences of decisions

### Heart (Emotional)

- Feel concern, empathy, and respect for other people and living things
- See from and appreciate multiple perspectives; work with and value others with different backgrounds, motivations, and intentions
- Commit to equity, justice, inclusivity, and respect for all people

**Hands (Active)**

- Create and use tools, objects, and procedures required by sustainable communities
- Turn convictions into practical and effective action, and apply ecological knowledge to the practice of ecological design
- Assess and adjust uses of energy and resources

**Spirit (Connectional)**

- Experience wonder and awe toward nature
- Revere the Earth and all living things
- Feel a strong bond with and deep appreciation of place
- Feel kinship with the natural world and invoke that feeling in others

The Core Competencies of Ecoliteracy: © 2014 Center for Ecoliteracy

## Teaching ecological literacy often involves the following:

- Weaving ecological and systems approaches into the existing curriculum in a coherent way that builds student knowledge over time (Note: The focus should be on ecological concepts and their relationships to each other—both the big picture and the details—and to the active preservation of the ecosphere rather than incremental inclusion of ecological concepts.)
- Building teacher capacity in the areas of ecology and systems thinking
- Learning from nature through immersion in the real world (nature and communities) and a deep knowledge of particular places
- Acknowledging that place-based and experiential outdoor learning is essential to the cognitive development, health, and well-being of children
- Cultivating a sense of wonder, creativity, and compassion for nature and for community
- Transforming the school into a living laboratory of buildings and processes that teach children about their interconnectedness to nature and their communities
- Linking to higher education resources and schools that allow students to continue the development of their ecological literacy

A list of resources is included following the appendices to further support curriculum development. This is a relatively new field. It is a rich area to explore and take leadership in shaping ecological literacy and in nurturing the next generation of empowered students and sustainable communities.

# Inquiry Approach

This component is intended to guide student inquiry and may be adapted to respond to student needs, interests, and new or emerging issues of global significance.

Inquiry is a complex process that grows out of constructivist pedagogy. It begins with the selection of a topic and the design of powerful questions that guide students as they select resources, gather and interpret information, build relevant knowledge and understanding, and share their findings and conclusions. Inquiry relies upon critical and divergent thinking. During the inquiry process, the role of a teacher shifts from covering content to becoming a guide and facilitator. Students are given the opportunity to generate their own questions, to set learning goals, to acquire and share enduring understandings, and to develop the decision-making skills that are part of active citizenship.

> Inquiry-based learning has its roots in the educational reform movements that began in the early 20th century and were guided by the work of Piaget, Vygotsky, Dewey, and other constructivists . Constructivists regard learning as an active process – a process where students construct understanding through problem solving and reflection.

## Areas of Inquiry and Issue Selection

How many issues should be addressed in this course?

If students are to achieve a balance of breadth and depth in their understanding of global issues, they need to focus on a **minimum of three areas of inquiry** over the length of this course. The choice of issues within each are of inquiry is flexible. (Refer to the backgrounders on each area of inquiry for a broad list of suggestions of specific issues.)

### Areas of Inquiry

- Media
- Consumerism
- Environment
- Poverty, Wealth, and Power
- Oppression and Genocide

- Health and Biotechnology
- Gender Politics
- Social Justice and Human Rights
- Indigenous Peoples
- Peace and Conflict

At the beginning of the course, teachers may choose to model the inquiry process through the collective study of one issue. Students will then conduct individual or group research in a minimum of three areas of inquiry. All students do not need to study the same issues but should have frequent opportunities to exchange new understandings and insights throughout the process. Each student or group of students will select one issue for their **Take Action** project.

## Guidelines for Student Inquiry

- Cultivate an open, democratic learning environment, where students are encouraged to be curious and independent and to take risks.

- Use student-centred learning strategies such as brainstorming, discussion, concept maps, and graphic organizers, and observe student progress through classroom-based assessment techniques. These strategies will provide ongoing opportunities for teachers to assess prior knowledge, to deal with student misconceptions and difficulties, and to assess progress.

- Help students develop strong inquiry questions that move beyond the accumulation of facts to the investigation of issues, conceptual understanding, and the exploration of diverse perspectives.

- Encourage students to consult a variety of sources, to consider diverse perspectives, and to use critical-thinking skills in the selection and interpretation of information.

- Strive to address issues that have local, national, and global implications. Whatever the issue, provide opportunities for students to engage in learning at the local community level. Experiential understanding of issues though local engagement will help students understand broader, more abstract systemic global issues.

- Determine whether an inquiry will involve the whole class, small groups, or individual students. If the inquiry process is new to students, begin by having all students collaborate on one topic. This approach will allow teachers to model and guide the inquiry process. As well, students will learn from each other as they share their research, discuss their findings and conclusions, and are exposed to healthy dissent and diverse perspectives.

- Encourage students to think critically and engage in reflection throughout the learning process and to maintain a learning log or journal. This record could include conceptual maps, inquiry questions, information sources, reflections, interview notes, and details of their learning journey.

- Use multiple resources, including primary source material, and encourage academic rigour. Students should be exposed to multiple and contradictory viewpoints, and encouraged to seek their own position based on reliable information. Sources could include community members, specialists and academics, newspapers and journals, web-based sources, governmental and non- governmental agencies and organizations, business and industry, environmental and social action groups, and others.

- Encourage creativity and diversity in the methods of presentation.

- Assessment needs to be ongoing and take multiple forms including self- and peer assessment. Student progress should be monitored and tracked through the use of ongoing observation and discussion, and with anecdotal records and checklists.

# Suggested Guiding Questions for Exploring an Issue

## Significance and Scope

■ Why does this issue matter? To whom?

■ Who/what is affected by the issue? Who benefits? Who is harmed?

■ When/where/how did this issue begin?

## Evidence

■ Have I used a variety of sources, including primary sources?

■ How reliable are my sources?

■ How do the media treat this issue?

A rigorous inquiry should address questions in each of these areas. Students may select some or all of the suggested guiding questions in each category, or they may generate new questions, as appropriate, for their topic.

## Perspective

■ How do perspectives differ on this issue (e.g., environmental, economic, political, social...)?

■ Which perspectives are most defensible and why? Whose voices are not heard?

■ What role do media play creating/perpetuating this issue?

## Impact: Environmental, Social, Political, Economic

■ What is happening at the local, national, and global level?

■ What actions are being taken by citizens, governments, businesses, and other groups?

■ What might be some of the short- and long-term consequences of these actions?

## Connections

■ How has this issue changed over time? What might be future concerns?

■ How is this issue connected to other environmental, social, or economic concerns?

■ Is this issue part of a larger trend or problem?

■ How does this issue affect the environment? Economy? Society? Quality of life?

■ Why does this issue continue to be a problem and for whom?

## Reflection

■ How do you feel about the issue now that you know more about it?

■ How might this issue have been prevented? What could have been done differently?

■ What questions do you still have?

## Action/Praxis

■ Who needs to do what? What can and should we do?

■ What are the challenges/barriers/risks to action?

■ What do I have to offer? How can I take action?

■ How can I get others involved?

# Suggested Topics by Area of Inquiry

**Note to teachers and students**: This is intended as a list of examples alone and is not an exhaustive list of possible inquiry topics. The selection of issues for inquiry should be flexible, should allow for new or emerging issues, and should be based upon student interests and access to reliable resources. Note that some topics may reappear in more than one area of inquiry, depending upon the entry point or approach to research. Student inquiry throughout this course must focus on issues in at least three of the ten Areas of Inquiry.

## Area of Inquiry: Media

- concentration of ownership and convergence
- power and profit
- propaganda, social engineering
- bias in media
- critical analysis of media
- selection and omission of news items
- marketing and advertising strategies
- freedom of the press: regulation, ethics, legislation, and censorship
- public control and citizen journalism
- alternative media and social justice

- stereotypes
- psychological influence (e.g., objectification, sexualisation, body image, fear)
- violence
- rise of infotainment
- power and influence of advertising (e.g., pervasiveness, embedded messages, product placement)
- popular culture and social mores
- culture of consumerism and environmental consequences

## Area of Inquiry: Consumerism

- consumer-based economies
- capitalism and free market economies
- citizen responsibilities and decision making
- corporate responsibilities and decision making
- culture of entitlement
- culture of credit
- culture of excess
- commodification of Indigenous cultures
- impact of branding, marketing, and advertising

- mass-media manipulation
- corporate sponsorship, product placement
- perceived/planned obsolescence
- lifestyle and health issues (e.g., obesity, chemical intolerances, allergies, illnesses, sedentary living)
- energy and natural resource depletion
- generation of waste
- petro-politics
- corporate and consumer greed
- sweatshops

## Area of Inquiry: Environment

- healthy ecosystems, preservation of biodiversity
- water management and quality
- limited resources versus unlimited development/growth
- responsible resource extraction
- energy efficiency and alternative energy sources
- environmental and human disasters (e.g., prevention, response, individual and collective)
- environmental degradation and technological solutions
- sustainable cities, design, urban planning
- alternative transportation
- standard of living versus quality of life
- carrying capacity

- energy consumption, carbon footprint, travel and transportation alternatives, alternative energy sources
- stewardship and equitable sharing of natural resources
- economic and environmental refugees
- population increase, distribution, movement, migration, urbanization
- politics and economics of climate change (e.g., impact of industrialization, responsibilities of developed/less-developed economies, Kyoto Accord; Arctic sovereignty)
- Gaia hypothesis, systems thinking, interconnectedness of human and natural systems, living sustainably

## Area of Inquiry: Poverty, Wealth and Power

- globalization: economic globalization, multinational and transnational corporations (e.g., control, regulation, erosion of government authority)
- global domination, military industrial complex, international arms sales
- organized crime
- technological advances
- forms of inequality/disparity: income, consumption, access to necessities of life (e.g., food, water, shelter, education, health, employment, safety)
- causes of inequality: colonialism, debt, unequal trade, economic policies (e.g., World Bank, IMF), natural and human causes of inequality/disparity

- bridging the gap between rich and poor countries: development assistance, debt relief, trade over aid, fair trade, rebuild fragile states/promote democracy, labour movements, community-based projects
- economic sanctions
- measuring poverty: absolute, relative
- causes: political, economic, natural
- forms of poverty: discrimination, marginalization
- effects of poverty: infant mortality, maternal health, child labour, working conditions, social vitality, income, basic needs, safety
- solutions/poverty reduction

## Area of Inquiry: Indigenous Peoples

- ethno-diversity of world's Indigenous peoples
- the legacy of colonialism, colonization, and decolonization
- enculturation, assimilation, and cultural loss
- disappearance of Aboriginal women in Canada
- impact of development and globalization on Indigenous peoples, cultural homogenization, disappearance of Indigenous peoples and cultures (e.g. population decrease, illnesses)

- restitution and reconciliation processes
- Indigenous resurgence and development, circumpolar and other international Indigenous organizations
- international rights of Indigenous peoples
- preservation of traditional Indigenous cultures and languages
- commodification, falsification, and marketing of traditional Indigenous knowledge
- recognition of distinctive Indigenous world views and values

## Area of Inquiry: Peace and Conflict

- nature and forms of conflict: international terrorism, transnational, and intrastate conflict, civil disobedience, terrorism, violent and non-violent revolutions, nuclear proliferation and deterrence

- agents of conflict: economic, military policies, military industrial complex, international arms sales and marketing

- ideology, religion; sources of conflict (e.g., human security, competition for land or resources, religion, racial or ethnic tensions, self-determination, political goals)

- ethical issues in war and military alliances

- impact of conflict: civilians, children, quality of life, environmental impact, economic impact

- intervention and conflict resolution: military, national security, government policies, citizen rights, multilateral intervention (e.g., UN), International humanitarian law (e.g., Red Cross, Red Crescent), reconstruction, international criminal courts, peace movements, pacifism, peacekeeping, peace building, diplomacy, counterinsurgency, policing, international development

- alternatives to war: economic sanctions, diplomacy, aid

## Area of Inquiry: Oppression and Genocide

- forms of oppression: racial, cultural, ethnic and religious

- inequitable control of land or resources, xenophobia, perceptions of racial or cultural superiority, systemic racism (e.g., Apartheid, state-based exclusion, oppression, or violence)

- political oppression: state authority, dictatorship, enforcement (e.g., role of military, police, secret police), punishment, racial profiling/ discrimination, propaganda and dissemination of hatred, bureaucracy, racial laws

- abuse of power and genocide (e.g., Shoah – Holocaust, Holodomor, Bosnia-Herzogovina, Rwanda, Armenia, Darfur)

- compliance, blind obedience, denials of genocide, crimes against humanity, disregard for international conventions, opportunism, ostracism, religion, peer pressure, stereotypes, supremacy, prejudice, ignorance, bystanders, propaganda, fear

- atrocities: concentration camps, exclusion, persecution, crimes against humanity, mass murder, deportation, extermination, genocide, Final Solution

- peace and reconciliation processes: dissent, state restitution/reparations, international tribunals, Righteous Among Nations (Yad Vashem), survivors, upstanders

## Area of Inquiry: Health and Biotechnology

- science, technology and human health, economic implications of health care, controversial genetic research (e.g., embryonic and stem cell research, animal testing, patenting DNA, genetic intervention and modification, preservation of genetic material, genetic information privacy)

- longevity and life-preservation measures

- controversial medical interventions (e.g., plastic surgery, in vitro fertilization, euthanasia, abortion)

- epidemic and pandemic prevention and response, disease control (e.g., AIDS, virus control, immunization)

- birth control and maternal and child care, pharmaceutical industry (e.g., Big Pharma, marketing, testing, control)

- food and drug management and testing, alternative health practices, safety, control and marketing

## Area of Inquiry: Gender and Identity

- feminism and views of gender roles

- worldwide gender equity issues, education of women, eco-feminism, women and power, women and the economic system, female health, maternal health, access to birth control and abortion, domestic labour, child-rearing, child care, female poverty

- cultural relativism versus rejection of oppressive cultural practices (e.g., female genital mutilation, honour killings of women, women's dress restrictions—hijab, burqa, niqab, limitations on female rights and freedoms)

- hetero-normativity, masculine/feminine gender role stereotypes

- same-sex marriage, homophobia

- sexual marketing, prostitution, human trafficking and slave trade, sex tourism, pornography, sexualization and abuse of children

- body image, female sexual stereotyping, the marketing of sexuality, impact on human relations

## Area of Inquiry: Social Justice and Human Rights

- universal human rights (e.g., ethnicity, race, culture, class, religion, sexual orientation, gender, abilities)
- economic disparities, poverty, quality of life
- access to food, water, health care, education, employment
- child exploitation, human trafficking and slave labour
- action for human rights
- forms of activism (e.g., the power of one, resistance to oppression, civil disobedience, conscientious objectors, boycotts, protests, grassroots movements, local community groups, citizen action groups, social networking and mobilization for change, popular culture and the arts)
- labour movement and unions, strikes, non-violent revolution
- Indigenous rights and self-determination
- crime and punishment, penal systems and economic implications, ethical treatment of prisoners
- environmentalism and environmental organizations
- ethical treatment and human use of animals
- eco-activism
- NGOs and international collaboration, role of governments in international aid (e.g.,
- CIDA, disaster relief, the economics of aid)

# Take Action — *Praxis*

Take Action is the experiential learning or praxis component of this course. The Brazilian educational philosopher Paulo Freire defined praxis as "reflective action intended to transform the world." Developed in the political context of 1960s Latin America, Freire's pedagogical theory was based on collective action toward freedom through literacy, dialogue, and critical consciousness. In the context of this Grade 12 Global Issues course, praxis engages students in work with their peers in order to apply their learning and contribute to a more equitable and sustainable planet in which quality of life is improved for all.

## Moving from Critical Consciousness to Praxis

Take Action shifts learning from the theoretical to the experiential by providing an opportunity for students to engage in practical community-based projects. The goal is to move students from awareness through questioning, inquiry, and dialogue to critical consciousness and, ultimately, to *praxis*—engagement in informed reflective action for positive change.

Successful Take Action projects will make a difference in the lives of students and their communities. In order for this to happen, projects need to be student-initiated, collaborative, and goal-oriented. Projects also need to be meaningful to students and related to issues they believe are important, relevant, and personally significant. The focus and scale of the projects should be flexible and they should accommodate student concerns, needs, and abilities. Students should be free to plan small- or large-scale projects with a local, national, or global scope. They may choose to work in a small group to take on personal projects that focus on making sustainable lifestyle choices; other students may decide to undertake larger scale, long-term projects that involve community members. Whatever the nature and scope of Take Action projects, students will have opportunities to become mindful, hopeful citizens who appreciate the power of collaboration and who contribute to a more equitable and sustainable world.

Among Grade 12 students, as in the general population, there will be a wide range of approaches to citizen action and engagement. Students should be encouraged to determine their own level of social action by challenging themselves to explore areas where they can be most effective in making personal, community, and societal change.

Westheimer and Kahne (2008) identify three approaches to citizenship, which may be seen as a sort of continuum of citizen engagement:

- the personally responsible citizen
- the participatory citizen
- the social-justice oriented citizen

The characteristics of each type of citizen are summarized in the table "Kinds of Citizens" on the following page.

As students learn about global issues and have opportunities to engage in meaningful action, they develop a critical consciousness of the world and the status quo. They come to see where there is a need for change and to understand that, as citizens, they can make a real difference in their communities and in the world. As they build an understanding of the many ecological, social, and ethical links between local issues and planetary issues, they come to build a more holistic or relational way of thinking that is based on the shared concerns and interdependence of human beings. The more opportunities students have to reflect and act upon issues that concern them, the greater the likelihood they will move along the citizenship continuum towards a social justice orientation, and the more likely they will become agents of systemic change.

## Kinds of Citizens

| | **Personally Responsible Citizen** | **Participatory Citizen** | **Justice Oriented Citizen** |
|---|---|---|---|
| **Description** | ■ Acts responsibly in his/her community<br>■ Works and pays taxes<br>■ Obeys laws<br>■ Recycles, gives blood<br>■ Volunteers to lend a hand in times of crisis | ■ Active member of community organizations and/or improvement efforts<br>■ Organizes community efforts to care for those in need, promote economic development, or clean up environment<br>■ Knows how government agencies work<br>■ Knows strategies for accomplishing collective tasks | ■ Critically assesses social, political, and economic structures to see beyond surface causes<br>■ Seeks out and addresses areas of injustice<br>■ Knows about democratic social movements and how to effect systemic change |
| **Sample** | ■ Contributes food to a food drive | ■ Helps to organize a food drive | ■ Explores why people are hungry and acts to solve root causes |
| **Core Assumption** | ■ To solve social problems and improve society, citizens must have good character; they must be honest, responsible, and law-abiding members of the community. | ■ To solve social problems and improve society, citizens must actively participate and take leadership positions within established systems and community structures. | ■ To solve social problems and improve society, citizens must question, debate, and change established systems and structures when they reproduce patterns of injustice over time. |

**Kinds of Citizens:** Westheimer, Joel, and Joseph Kahne. "What Kind of Citizen? The Politics of Educating for Democracy." *American Educational Research Journal* 41.2 (Summer 2004). 237–269.

# Consumer to Citizen

The over-arching goal of this course is to help students grow in their capacities as ecologically literate, social justice–oriented citizens. This growth should naturally include a shift away from a consumerist world view to one of citizenship.

Consumerism is a thriving force in our society, supported by the powerful tools of marketing and advertising. O'Reilly and Tennant (2010) regard advertising as the most ubiquitous force in modern culture. Students are exposed to advertising at every turn and, just like many of the adults in their lives, may embrace consumerism both as a way of life and as a measure of *quality of life*. Only recently have we as a society begun to address the tensions between consumerism and citizenship and to recognize the disastrous and far-reaching impact of unchecked consumerism on the environment—and it may already be too late to reverse the damage we have inflicted upon the planet.

Every issue explored in this course provides an opportunity for student collaboration and growth—either within the general program of study or within the Take Action component. However, this growth will not be automatic. It is critical that students be given time and encouragement to

- reflect deeply upon issues they study
- consider diverse perspectives
- make connections between global issues and personal decisions and actions
- engage in proactive decision making
- take a stand on important issues
- engage in personal and collective action to effect change and contribute to improved quality of life

The mindful selection of issues for study is an important part of this growth process. Students need to investigate real issues—those that reveal the need for personal and social change—and then apply their learning by making changes in their personal life decisions. This process will help them in two important ways. Students will

- develop critical consciousness of the economic, social, cultural, ecological, and political factors that influence decision making
- understand how personal decisions and actions can have far-reaching consequences

Over time, students increasingly will be able to initiate and carry out desired changes in their own lives. Perhaps most importantly, they will also understand that hopefulness and optimism grow out of the knowledge that working collaboratively with others is the best way to challenge accepted practices and actually effect change. This process of becoming critically aware agents for change may mean a profound shift in values and attitudes for some students—moving from a world view based on consumerism to one that is focused on citizenship.

# General Characteristics of Take Action Projects

## Projects *may* be

- ongoing over the term or year, or a culminating activity
- new projects or they may build upon existing initiatives in the school or community

## Projects *must*

- reflect student interests, abilities, and talents
- be collaborative (working with other students in the course or school, or with community members)
- make links between local and global issues
- involve student inquiry and be supported by research
- allow for diversity—each student determines his or her level of activism and the type of contribution he or she is best able to make

- be anchored in at least two of the components of sustainable development (i.e., a sustainable environment, a just economy, and a healthy society)
- include a dimension of personal lifestyle and decision making, so as to include more sustainable practices in their daily lives
- include a learning log for reflection and self-evaluation

Projects will vary according to students' interests and particular strengths or abilities. Where possible, students should be encouraged to

- network with local experts and community resource persons for advice and direction
- help raise community awareness through promotional campaigns and/ or community meetings
- approach local politicians and community leaders for assistance in their cause and petition them for change

- organize actions and activities that involve other students in the school and community members
- provide regular progress updates to the class
- find alternative and creative means of sharing information with their peers and community members

## Time Allotment

The suggested time allotment for Take Action projects is a maximum of 25% of the course time. Teachers need to decide how much in-class time will be used to support students as they plan, carry out, and share reflections and progress on their projects. These decisions will be based on the needs, interests, and abilities of students, but it is generally expected that students will spend a significant percentage of the allotted time outside of class.

## Existing Projects

Many students who will be interested in taking this course may already be engaged in—and busy with—existing school or community action projects. These existing projects may fulfill the action portion of the Take Action component. However, students would still be expected to fulfill the assessment requirements of this course component, as described below.

## Communicating Results

Throughout the planning, research, and implementation phases of the Take Action project, students should have frequent opportunities to learn from each other through dialogue and by having opportunities to make formal or informal presentations to the class. They should also be encouraged to use various media to communicate their learning with others, (e.g., blogs, wikis, and online journals; video documentaries; information booths; presentations and updates at school assemblies; student-written plays and other artistic productions; workshops, forums and webcasts; team or community consultations, etc.).

## Assessment of Take Action Projects

As noted earlier, the time allotted to Take Action projects is recommended to be a maximum of 25% of the course time. It is also recommended that this action component comprise 25% of the overall grade for this course.

Students and teachers should collaborate to determine assessment criteria prior to beginning project work. Methods of assessment should fit the needs of the students and nature of the project. The main areas of assessment should include

- project goals and outline
- action plan
- research and inquiry questions
- learning log
- evidence of community involvement or partnerships

- ongoing progress reports
- execution/results of the project
- communication of learning to peers, school, community, as appropriate
- final presentation and/or summative report

Assessment should be ongoing and include opportunities for student reflection, self-assessment, and peer assessment, as well as community member input where appropriate. A classroom- based assessment approach, including assessment *for* learning, *as* learning, and *of* learning, will help encourage students to reach their potential. Early and frequent performance reviews, including the provision of descriptive feedback, will help students learn and grow, and will greatly improve the outcomes of their projects. Peer and self-assessment will help students cultivate learning strategies and guide them as they take action to achieve their project outcomes. The Learning Logs will provide opportunities for students to engage in reflection and self-assessment of their learning experiences.

## Legacy Projects

Some projects may live on long after students have graduated. The student initiators of legacy projects may choose to continue their involvement with the school and project after they graduate.

Alternatively, the project may be picked up and continued by students in successive years. Legacy projects may even become part of wider community initiatives and take on a life of their own in making the world a better place.

## Life Assignment (This course is just the beginning.)

This course alone cannot solve the ills of the world. Ideally, students who complete the course will regard it as an important beginning point in their lives. If teachers approach this course with the spirit in which it has been designed, they will inspire students to embrace the notion of citizenship for social justice as a way of life, to consciously live their lives as agents of change in order to make a positive contribution to the community, and to help ensure a sustainable future for all.

## Take Action Project Examples

### Sustainable Environment

■   *Reduce Your Carbon Footprint:* Research the impact of lifestyle and consumer choices in Manitoba and elsewhere in the world (e.g., drinking bottled water; eating meat; driving gas-powered vehicles; buying non fair-trade coffee/chocolate…). Choose an issue and change personal lifestyle habits. Organize campaigns and actions for more widespread community change. Convince a local grocery store (or national chain) to stock local produce in season and more fair trade products; persuade peers and community members to get rid of the car, help make "Walk or Take Your Bike to Work or School" an everyday event instead of an annual one.

■   *Water Conservation: Wetlands or River Bank Study and Clean-up:* Monitor and record observations about water quality and the presence of wildlife. Contact and work with experts from universities, colleges, or the Manitoba Department of Sustainable Development. Research information about water in the local community and in other areas of the world. Learn about other student-led projects such as Ryan's Well, and find ways to contribute to existing projects, or create a new project, participate in, or initiate an ongoing adopt-a-river project.

■   *Community Garden:* Investigate the implications of bio-engineering, mono-cultures, food transportation, and other issues related to food production and consumption. Visit an organic farm and learn about sustainable practices. Create and maintain a school or community garden, share the produce with peers and food banks, or sell it to raise funds to help maintain the garden. Learn about what's going on in other Canadian and American cities where small and large movements are turning abandoned factories, public property, and donated land into gardens. Find ways to extend the garden into and around the community. Enlist local businesses, school boards, and private individuals to donate land for more gardens, and convince more people (like senior citizens) to join the project. (This would be an excellent legacy project.)

## Just Economy

■ *Poverty:* Examine the reality of poverty in the local community and find sustainable ways to help people in the local community. Organize a breakfast program or regular food bank drives in the school, make a commitment to long-term assistance at a local food bank, and convince other students to do the same. Offer cooking lessons using nutritious foods in a local community centre or organize an excess food delivery service between local restaurants and soup kitchens. Write to or meet with local politicians and other people of influence to discuss the issues and to make a case for changes in policies and practices.

■ *Workers' rights:* Start local by conducting a survey to determine how many students in the school division have part-time jobs, and the conditions, rights, and benefits of those jobs (or lack thereof). Expand that survey to include members of the community; find out what rights workers have in the local area. Going farther afield, research conditions for various jobs in Canada and other places in the world. Learn some history by exploring the history of unions and gains made for workers' rights in Canada and other places in the world. Find out what happened during the Winnipeg 1919 General Strike. Share information with peers and make them aware of their rights.

■ *Rights of the child:* Initiate a project related to the rights of the child. Research children's rights, including laws (e.g., Canadian Charter of Rights and Freedoms, United Nations Rights of the Child), and practices that contravene rights (e.g., child labour, sexual exploitation). Learn about existing projects related to children's rights such as Ryan Hreljac's *Ryan's Well* and Craig Kielburger's *Free the Children*. Develop a campaign around a theme such as child labour to teach students throughout the school and community members about how we all contribute to the problem through our consumerism. Create strategies to convince local businesses to change their practices to become more respectful of children's rights (e.g., awareness of product origin, refusal to sell products that exploit child labour).

## Community and Society

■ *Anti-consumerism:* Use the resources of organizations and social movements such as Ad Busters, The Story of Stuff, the Freegans, Voluntary Simplicity, Buy Nothing Day, No Logo, Slow Food, 100-mile diet, Greenpeace, and other anti-consumer organizations to learn about mass-media manipulation and issues related to consumerism. Plan a project to share ideas, take action, and organize activities to raise critical awareness among peers and community members (e.g., Turn off Television Week; anti-fashion shows; community café events; recycled art projects; Henry David Thoreau readings or events; local music or art festivals...).

■ *Connecting with seniors:* Improve the lives of isolated seniors. Make regular and sustained visits to senior centres that include purposeful activities and include them in school events (e.g., organize a seniors' prom; plan a jazz band tour of senior centres).

■ *Be a mentor or role model:* Organize a tutoring or participation program with students in an Early or Middle Years school. Make use of personal talents in sports, writing, music, theatre, visual arts, etc., by sharing those talents with young people.

## Take Action: Outline

**Phase 1: Planning phase**

- Define topics of interest and determine a focus for inquiry and action.
- Develop a plan for inquiry and action, including goals and intended outcomes, required resources, partnerships, team members/tasks (if a collective project), time allotment, feasibility, communication, and sharing plan.
- Identify inquiry questions to guide research: *what will we need to know and be able to do in order to carry out this project?*

**Phase 2: Research phase**

- Determine inquiry questions and gather data from a variety of sources.
- Maintain a Learning Log.
- Create materials for sharing with peers and community members, as required.

**Ongoing: Review and adjust planning**

- Throughout the inquiry process, engage in ongoing dialogue with your teacher and other students in the class for feedback and to share learning and motivate others.
- Enlist the support of community mentors or guides as required, and meet regularly.

**Phase 3: Implementation phase**

- Execute action plan: review and modify as required.
- Establish timeline, time allocation, budget, and material requirements, and review as needed.

**Phase 4: Reflection and assessment**

- Create a summative report or presentation to share with the class/school.
- Create legacy project: produce a synopsis of the project for next year's class and/or to enlist students in earlier grades to take over the project the following year.
- Solicit feedback from community members.
- Solicit press support or coverage where appropriate.
- Communicate results with the larger community.

**Phase 5: Life assignment**

- Be an agent of change; contribute to the community; live sustainably.

## Student Suggestions

These ideas were gathered from Manitoba students at the *Social Justice: Educating for ACTion* Conference, November 18–19, 2010, in Winnipeg, Manitoba.

**Getting started on a project**

- Take baby steps...start with what's easy, but think big.
- Take on things that get you excited.
- Involve as many other students as possible; start a school committee.
- Find an interested teacher to help you.
- Learn about what others are doing about the issue, near and far. Connect with them to share ideas.

## Student Suggestions

These ideas were gathered from Manitoba students at the *Social Justice: Educating for ACTion* Conference, November 18–19, 2010, in Winnipeg, Manitoba.

### Communicating with others about your project

- Share what you know with others—paper or electronic newsletter to school, community members, and others.
- Set up "soap-box speakers" in the hallways and make sure the speakers are passionate.
- Use whomever you can for their talents—even if they aren't part of the project. Ask artists to create posters; ask charismatic students, teachers, community members, or local celebrities to be spokespersons.
- Make videos and post them on YouTube.
- Create bulletin board displays in the school.
- Show videos to the school. Set up a booth at lunch.
- Play songs with messages to interest and engage people (during lunch or school activities).
- Share ideas at other schools. Have students from other schools share their ideas.
- Hold creative events in public places (school or community).
- Put up a big sheet of paper in the school or community and have people sign a pledge for the cause.
- Use multiple and creative ways to share information, such as electronically, on paper, and through events.

### Project ideas

- Project topics need to be both local and international.
- Topics should connect with real people at a distance.
- Potential topics could include micro loans, war-affected children, or AIDS awareness.
- A project could be based on the World Vision program that provides a chicken or goat to a village.
- Students could take part in Halloween for Hunger and go door-to-door on Halloween for food donations.
- Bring back alumni who've achieved things or are involved in social action.
- Use music/entertainment and food.
- Provide interactive information sessions where possible instead of delivering information.
- Don't give up. It's okay if your first attempt doesn't work. Just try something different and learn lessons.

### Fundraising

- Bring a dollar for day (wearing a hat/blue jeans/pyjamas).
- Walk for water /coats for kids /kick balls for kids.
- Don't just raise money and send it to needy people far away (that's slacktivism, not activism).
- People like "give and get," so give them something when you ask for their money (e.g., root beer floats for Haiti).

# Suggested Assessment and Evaluation Model

Assessment in this course should be ongoing and should include opportunities for student reflection, self-assessment, and peer assessment. The Take Action component of the course may also include opportunity for community member input. (See Take Action for specific details about assessing this component of the course.)

A classroom-based assessment approach, including assessment for learning, as learning, and of learning, will help students to reach their potential and ensure academic rigour. Early and frequent assessment tasks, including descriptive feedback, will help students learn and grow, reflect on their learning, and make significant links between research and practical lifestyle applications.

Teachers may opt to create a class wiki, blog, or other form of social media as a means of facilitating the ongoing exchange of ideas throughout the course. The following model proposes guidelines for assessment of learning, and suggests a wide variety of assessment tools and strategies. These tools may range from quizzes or tests to article analyses, electronic portfolios, learning journals, research reports, case studies, role plays, interviews and simulations, debates, audiovisual, or multimedia presentations or other performance tasks.

| | | |
|---|---|---|
| **Inquiry / Process** | Issue selection and generation of guiding questions, inquiry planning, engagement in dialogue, ongoing learning log, peer and self-assessment | 25% |
| **Inquiry /Product** | Written, oral, and multi-media tasks, communication of inquiry results | 25% |
| **Critical Understanding** | Understanding of issues and key concepts; evidence of Enduring Understandings; competencies of citizenship and ecological literacy | 25% |
| **Take Action/Praxis** | Planning of research-action project, implementation, communication, and evaluation of results | 25% |

# Examples of Assessment Tasks

| Category and Value | Descriptor | Suggested Tasks |
|---|---|---|
| Inquiry/Process 25% | Issue selection and generation of guiding questions, inquiry planning, engagement in dialogue, ongoing learning log, peer and self-assessment | ■ Annotated bibliography<br>■ Reflection or response journal<br>■ Synthesis or reflection question response<br>■ Analysis of diverse perspectives<br>■ Analysis and interpretation of data<br>■ Discussion, position statement<br>■ Interviews<br>■ Selection of sources<br>■ Pre- and post-inquiry reflection |
| Inquiry/Product 25% | Written, oral, and multi-media tasks, communication of inquiry results | ■ Oral defence of thesis statement<br>■ Persuasive speech<br>■ Case study<br>■ Visual or multimedia creation/ presentation<br>■ Musical or dramatic production/ presentation<br>■ Simulation, role-play<br>■ News report or editorial writing<br>■ Political cartoon creation<br>■ Position paper<br>■ Debate or deliberation |
| Critical Understanding 25% | Understanding of issues and key concepts; evidence of Enduring Understandings; competencies of citizenship and ecological literacy | ■ Mind map, concept map, graphic organizer, or flow chart<br>■ Issue analysis<br>■ Media deconstruction<br>■ Take-home exam, prepared question exam, written or oral test, quiz<br>■ News report or editorial analysis/ comparison<br>■ Audiovisual, photographic, musical, dramatic analysis/comparison<br>■ Hypothesis statement<br>■ Critical thinking tasks (e.g., construct a theory about the main point of an article based on its title; write a two-line response to an article…) |

| Category and Value | Descriptor | Suggested Tasks |
|---|---|---|
| Take Action/Praxis 25%<br><br>*Teachers may decide to accord 10% to a "legacy project" or ongoing action commitment.* | Planning of research-action project, implementation, communication, and evaluation of results | ■ Meeting organization; meeting facilitation<br>■ Project work plan<br>■ Project proposal<br>■ Risk analysis<br>■ Self- and peer assessment of project plan and results<br>■ Community feedback and evaluation of project |

# Resources

## Ecological Literacy

### Print

Stone, Michael K., and the Center for Ecoliteracy. *Smart by Nature: Schooling for Sustainability*. Bristol, UK: Watershed Media, 2009.

Stone, Michael K., and Zenobia Barlow (eds.). *Ecological Literacy: Educating Our Children for a Sustainable World*. San Francisco, CA: Sierra Club Books, 2005.

Orr, David W. *Ecological Literacy*. New York, NY: SUNY Press, 1991.

Capra, Fritjof. *The Web of Life: A New Scientific Understanding of Living Systems*. New York, NY: Ancor Books, 1996.

Capra, Fritjof. *The Hidden Connections: A Science for Sustainable Living*. New York, NY: Anchor Books, 2002.

Capra, Fritjof. *Uncommon Wisdom*. New York, NY: Simon and Schuster, 1988.

Goleman, Daniel. *Ecological Intelligence*. New York, NY: Broadway Books, 2009. http://danielgoleman.info/topics/ecological-intelligence/

Goleman, Daniel, Lisa Bennett, and Zenobia Barlow. *Ecoliterate. How Educators are Cultivating Emotional, Social, and Ecological Intelligence*. Hoboken, NJ: Jossey-Bass, 2012.

Berkowitz, Alan R., Mary E. Ford, and Carol A. Brewer. "A Framework for Integrating Ecological Literacy, Civics Literacy, and Environmental Citizenship in Environmental Education." In *Environmental Education or Advocacy: Perspectives of Ecology and Education in Environmental Education*. E.A. Johnson and M.J. Mappin (eds.), Cambridge University Press. 227–266.

Hoelscher, David W. "Cultivating the Ecological Conscience: Smith, Orr, and Bowers on Ecological Education." M.A. thesis, University of North Texas, 2009. Available online at http://digital.library.unt.edu/ark:/67531/metadc12133/m1/

### Websites

*Second Nature: Education for Sustainability*
Second Nature works with educators to help make the principles of sustainability fundamental to every aspect of higher education. This site provides "climate guidance" tools as well as information on its leadership network of leading higher education presidents who are making bold commitments in response to climate change and towards sustainability.
www.secondnature.org/

*SEPN: The Sustainability and Education Policy Network*
> SEPN is an international network of researchers and organizations advancing sustainability in education policy and practice.
> http://sepn.ca/

*Frijof Capra*
> "Fritjof Capra, Ph.D., is a scientist, educator, activist, and author of many international bestsellers that connect conceptual changes in science with broader changes in worldview and values in society."
> www.fritjofcapra.net/

## Videos

*Ecological Literacy: Part 1*
> "Fritjof Capra introduces the new scientific understanding of life and the role of ecological literacy in building and nurturing sustainable communities." (Credit: Center for Ecoliteracy)
> www.youtube.com/watch?v=vohcled-kto

*Ecological Literacy: Part 2*
> "Fritjof Capra describes how school gardens can reconnect children to the fundamental patterns and processes of nature that sustain life." (Credit: Center for Ecoliteracy)
> www.youtube.com/watch?v=7RZ-_C3sIt4

*Ecological Literacy: Part 3*
> "Fritjof Capra discusses the basic principles of ecology and the need for ecological literacy to be the most important part of education at all levels." (Credit: Center for Ecoliteracy)
> www.youtube.com/watch?v=7RZ-_C3sIt4

## Systems Thinking

## Print

Capra, Fritjof, and Pier Luigi Luisi. *The Systems View of Life: A Unifying Vision*. Cambridge, UK Cambridge University Press, 2014.

Meadows, Donella. *Leverage Points: Places to Intervene in a System*. Hartland, VT: The Sustainability Institute, 1999.

Meadows, Donella. *The Global Citizen*. Washington, DC: Island Press, 1991.

Senge, Peter, Nelda Cambron-McCabe, Timothy Lucas, Bryan Smith, Janis Dutton, and Art Kleiner. *Schools that Learn: A Fifth Discipline Fieldbook for Parents, Educators and Everyone who Cares about Education*. New York, NY: Doubleday, 2000.

Stroh, David Peter. *Systems Thinking for Social Change: A Practical Guide to Solving Complex Problems, Avoiding Unintended Consequences, and Achieving Lasting Results*. White River Junction, VT: Chelsea Green Publishing, 2015.

Sweeney, Linda Booth, and Diana Wright (eds.). *Thinking in Systems*. White River Junction, VT: Chelsea Green Publishing, 2008.

## Websites

*Linda Booth Sweeney*
Linda Booth Sweeney is an educator and author who has created numerous accessible educational materials and programs that promote systems literacy (i.e., a deeper understanding of living systems).
www.lindaboothsweeney.com

*The Systems Thinker*
"The Systems Thinker works to catalyze effective change by expanding the use of systems approaches." This site provides access to free articles so as to expose this work to as wide an audience as possible.
www.thesystemsthinker.com/

*The Resilience Alliance*
"The Resilience Alliance is a research organization that focuses on resilience in social-ecological systems as a basis for sustainability."
www.resalliance.org

*Society for Organizational Learning*
The Society for Organizational Learning facilitates connections among organizations, businesses, and individuals through organizational learning so they can access the tools and community support they need to address the complex and evolving issues we face as a planet.
www.solonline.org

*Creative Learning Exchange*
The Creative Learning Exchange is intended to help K–12 educators develop "Systems Citizens" who use "systems thinking, system dynamics, and an active, learner-centered approach to meet the interconnected challenges that face them at personal, community, and global levels."
www.clexchange.org/

*The Waters Foundation*
This site offers useful systems-thinking tutorials for K–12 education.
www.watersfoundation.org/webed/

## Design Inspired by Nature

**Print**

McDonough, William, and Michael Braungart. *Cradle to Cradle: Remaking the Way We Make Things*. New York, NY: North Point Press, 2002.

Benyus, Janine. *Biomimcry: Innovation Inspired by Nature*. New York, NY: Harper Collins, 1997.

Wilson, Edward O. *Biophilia*. Cambridge, MA: Harvard University Press, 1986.

David W. Orr. *The Nature of Design: Ecology, Culture, and Human Intention*. Oxford, UK: Oxford, 2002.

**Websites**

*AIGA's Living Principles for Design*
"The Living Principles for Design were borne out of the design profession's need for an aspirational and actionable framework for integrated sustainability—a common point of reference to which all designers can refer."
www.livingprinciples.org/

*Inhabitat*
"Inhabitat.com is a weblog devoted to the future of design, tracking the innovations in technology, practices and materials that are pushing architecture and home design towards a smarter and more sustainable future."
http://inhabitat.com/

*The Designers Accord*
"The Designers Accord was created in late 2007 as a five-year project to mainstream sustainability in the global creative community."
www.designersaccord.org/

*Centre for Child Honouring*
Child Honouring is a global movement that seeks to create sustainable, peacemaking societies by honouring children and has produced a Covenant for Honouring Children.
http://childhonouring.org/

## Sense of Place

**Print**

Louv, Richard. *Last Child in the Woods: Saving Our Children from Nature Deficit Disorder*. New York, NY: Algonquin Books, 2005.

**Websites**

*Wendell Berry*
> Wnedell Berry is an American novelist, poet, cultural critic, farmer, and environmental activist. This site cites his many published works.
> www.wendellberrybooks.com/

*Richard Louv*
> "Richard Louv is a journalist and author who has helped launch an international movement to connect children and their families to nature. He is co-founder and Chairman Emeritus of the Children & Nature Network, an organization helping build the international movement to connect people and communities to the natural world."
> http://richardlouv.com/

## Other Resources in Environmental Education

### Print

Appelhof, Mary. *Worms Eat My Garbage*. Kalamazoo, MI: Flower Press, 1997.

Appelhof, Mary, Mary Frances Fenton, and Barbara Loss Harris. *Worms Eat Our Garbage: Classroom Activities for a Better Environment*. Kalamazoo, MI: Flowerfield Enterprises, 1993.

Payne, Binet. *The Worm Café: Mid-Scale Vermicomposting of Lunchroom Wastes*. Kalamazoo, MI: Flower Press, 2003.

Cronin, Doreen. *Diary of a Worm*. Harry Bliss (illustrator). New York, NY: HarperCollins, 2003.

David, Laurie, and Cambria Gordon. *The Down-to-Earth Guide to Global Warming*. New York, NY: Orchard Books, 2007.

Grant, Tim, and Gail Littlejohn (eds.). *Greening School Grounds: Creating Habitats for Learning*. Toronto, ON: Green Teacher, 2001.

Grant, Tim, and Gail Littlejohn (eds.). *Teaching Green: The Elementary Years*. Gabriola Island, BC: New Society Publishers, 2005.

Grant, Tim, and Gail Littlejohn (eds.). T*eaching Green: The Middle Years*. Gabriola Island, BC: New Society Publishers, 2004.

Grant, Tim, and Gail Littlejohn (eds.). *Teaching Green: The High School Years*. Gabriola Island, BC: New Society Publishers, 2009.

Grant, Tim, and Gail Littlejohn (eds.). *Teaching about Climate Change: Cool Schools Tackle Global Warming*. Toronto, ON: Green Teacher, 2001.

Gutman, Dan (ed.). *Recycle This Book: 100 Top Children's Authors Tell You How to Go Green*. New York, NY: Yearling, 2009.

Tradewell, Kelly. *Earth Issues: Our Lifestyles and the Environment: An Environmental Education Manual for Children Grades K through 5*. Cowichan Valley Regional District (CVRD) Engineering Services, 2006.
https://www.cvrd.bc.ca/DocumentCenter/Home/View/513

## Websites

*Learning for a Sustainable Future*
"LSF's innovative methodologies help educators to engage their students in addressing the increasing complex economic, social and environmental challenges of the 21st century. LSF's professional development workshops, tools, classroom resources and funding help teachers enrich their students' education through active, experiential and interdisciplinary learning."
http://www.lsf-lst.ca/en/projects/teacher-resources

*UN Decade of Education for Sustainable Development (2005¬–2014)*
"The UN Decade of Education for Sustainable Development sought to mobilize the educational resources of the world to help create a more sustainable future."
http://en.unesco.org/themes/education-sustainable-development/what-is-esd/un-decade-of-esd

*UNESCO Teaching and Learning for a Sustainable Future: A Multimedia Teacher Education Programme*
"Teaching and Learning for a Sustainable Future, a UNESCO programme for the United Nations Decade of Education for Sustainable Development, provides professional development for student teachers, teachers, curriculum developers, education policy makers, and authors of educational materials."
www.unesco.org/education/tlsf/

*Giraffe Heroes Project*
The Giraffe Heroes Project has nominated over 1,300 people to be included in its database of real heroes—that is, real people who have "stuck their necks out" for the common good.
www.giraffe.org

*Eco-Kids*
"EcoKids offers free learning activities and resources for Canadian teachers, students, parents and communities to engage in environmental action. EcoKids is designed to inspire children to become life-long environmental stewards through nature connection and play."
www.ecokids.ca

*Global Footprint Network Ecological Footprint Calculator*
   Students can use this calculator to find out how many planets it would take to support their lifestyle.
   www.footprintnetwork.org/resources/footprint-calculator/

*Natural Resources Canada Teachers' Tools*
   This site provides useful energy and environmental materials and resources to engage K–12 students.
   http://www.nrcan.gc.ca/energy/efficiency/kidsclub/teachers-tools/13790

*Girl Guides of Canada. Explore Water with Holly Heron.*
   This activity booklet, provided by Girl Guides of Canada, includes experiments that are suitable for Grades 1–3.
   http://infohouse.p2ric.org/ref/03/02429.pdf

*Green Teacher Magazine*
   The quarterly Green Teacher magazine "offers perspectives on the role of education in creating a sustainable future, practical articles and ready to use activities for various age levels, and reviews of dozens of new educational resources."
   www.greenteacher.com/

*The Groundwater Foundation*
   This site fosters awareness of the need for clean groundwater and provides useful K–12 resources for educators.
   http://www.groundwater.org/kids/

*One Simple Act – Alberta (Grades 1–6)*
   "The choices we make at home, at work and at school all add up to make a big difference. Together we can have a big impact on Alberta's environment."
   http://www.onesimpleact.alberta.ca/

*Re-Energy.ca*
   "With re-energy.ca, students of all ages use detailed construction plans to build working models of wind turbines, solar ovens, hydroelectric generators, and biogas generators."
   www.re-energy.ca

*Resources for Rethinking*
   "Exemplary classroom resources reviewed by teachers for teachers."
   http://r4r.ca/en/

*The Story of Stuff*
   This 20-minute video explains the cradle-to-grave, production-to-disposal cycle of your "stuff."
   www.storyofstuff.com/

# Appendix A: 12 Living Systems Principles

There are living systems on all scales, from the smallest plankton to the human body to the planet as a whole. When we understand what constitutes a living system, we see that a family, a business, even a country are also living systems. Here is a partial list of principles related to understanding living systems:

**Interdependence:** A relationship in which each partner affects and often needs the other.

**System Integrity:** What a system has when all the parts and processes essential to its ability to function are present.

**Biodiversity:** the variety, complexity, and abundance of species that, if adequate, make ecosystems healthy and resilient.

**Cooperation and Partnership:** The continual process in which species exchange energy and resources.

**Rightness of Size:** The proportions of living systems—their bigness or smallness and their built- in limitations to growth—that influence a system's stability and sustainability.

**Living Cycles:** A cycle is a circular process that repeats over and over, frequently returning to where it began. The water, lunar, sleep, and other cycles sustain life, circulate resources, and provide opportunities for renewal.

**Waste = Food:** When waste from one system becomes food for another. All materials in nature are valuable, continuously circulating in closed loops of production, use, and recycling.

**Feedback:** Circular processes that create growth or decay by amplifying change (reinforcing feedback) or foster stability by counteracting or lessening change (balancing feedback).

**Nonlinearity:** A type of behaviour in which the effect is disproportionate from the cause.

**Emergent Properties:** Behaviour that arises out of the interactions within a specific set of parts: the health of an ecosystem or a team's performance, for example.

**Flux:** The continual movement of energy, matter, and information that moves through living systems. Flux enables the living or "open" system to remain alive, flexible, and ever-changing. The sun, for instance, provides a constant flux or flow of energy and resources that feeds all living organisms.

**The Commons:** Shared resources—such as air, water, land, highways, fisheries, energy, and minerals—on which we depend and for which we are all responsible.

Other key concepts related to living systems include *autopoesis*, *cognition*, and *learning*, *networks*, *the first and second law of thermodynamics*, *stocks and flows*, *exponential growth*, *carrying capacity*, and *ecological footprint*.

# Appendix B: Center for Ecoliteracy – Ecological Principles

Creating communities that are compatible with nature's processes for sustaining life requires basic ecological knowledge. Center for Ecoliteracy cofounder Fritjof Capra says we need to teach our children—and our political and corporate leaders—the following fundamental facts of life:

- Matter cycles continually through the web of life.
- Most of the energy driving the ecological cycles flows from the sun.
- Diversity assures resilience.
- One species' waste is another species' food.
- Life did not take over the planet by combat but by networking.

## Nature's Patterns And Processes

Understanding these facts arises from understanding the patterns and processes by which nature sustains life. In its work with teachers and schools, the Center for Eco-literacy has identified several of the most important of these: networks, nested systems, cycles, flows, development, and dynamic balance.

### Networks

All living things in an ecosystem are interconnected through networks of relationships. They depend on this web of life to survive. For example, in a garden, a network of pollinators promotes genetic diversity; plants, in turn, provide nectar and pollen to the pollinators. (Could we have some human systems examples here for each pattern?)

### Nested Systems

Nature is made up of systems that are nested within systems. Each individual system is an integrated whole and—at the same time—part of larger systems. Changes within a system can affect the sustainability of the systems that are nested within it as well as the larger systems in which it exists. For example: Cells are nested within organs within organisms within ecosystems.

## Cycles

Members of an ecological community depend on the exchange of resources in continual cycles. Cycles within an ecosystem intersect with larger regional and global cycles. For example, water cycles through a garden and is also part of the global water cycle.

## Flows

Each organism needs a continual flow of energy to stay alive. The constant flow of energy from the sun to Earth sustains life and drives most ecological cycles. For example: Energy flows through a food web when a plant converts the sun's energy through photosynthesis, a mouse eats the plant, a snake eats the mouse, and a hawk eats the snake. In each transfer, some energy is lost as heat, requiring an ongoing energy flow into the system.

## Development

All life — from individual organisms to species to ecosystems — changes over time. Individuals develop and learn, species adapt and evolve, and organisms in ecosystems coevolve. For example: Hummingbirds and honeysuckle flowers have developed in ways that benefit each other; the hummingbird's color vision and slender bill coincide with the colors and shapes of the flowers.

## Dynamic Balance
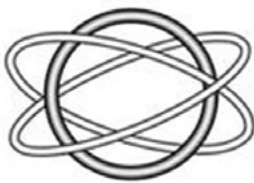
Ecological communities act as feedback loops, so that the community maintains a relatively steady state that also has continual fluctuations. This dynamic balance provides resiliency in the face of ecosystem change. For example: Ladybugs in a garden eat aphids. When the aphid population falls, some ladybugs die off, which permits the aphid population to rise again, which supports more ladybugs. The populations of the individual species rise and fall, but balance within the system allows them to thrive together.

# Appendix C: Habits of Systems Thinkers

There is no one pedagogy, book, or computer program that will help us become better systems thinkers. Instead, the complexity of our worlds demand that we develop "habits of mind" (to borrow Art Costa's term) to intentionally use systems principles to understand the complexity of everyday situations and to design for desired futures.

## The 12 Habits of Mind – a systems thinker…

- Sees the Whole: sees the world in terms of interrelated "wholes" or systems, rather than as single events, or snapshots;

- Looks for Connections: assumes that nothing stands in isolation; and so tends to look for connections among nature, ourselves, people, problems, and events;

- Pays Attention to Boundaries: "goes wide" (uses peripheral vision) to check the boundaries drawn around problems, knowing that systems are nested and how you define the system is critical to what you consider and don't consider;

- Changes Perspective: changes perspective to increase understanding, knowing that what we see depends on where we are in the system;

- Looks for Stocks: knows that hidden accumulations (of knowledge, carbon dioxide, debt, and so on) can create delays and inertia;

- Challenges Mental Models: challenges one's own assumptions about how the world works (our mental models) — and looks for how they may limit thinking;

- Anticipates Unintended Consequences: anticipates unintended consequences by tracing loops of cause and effect and always asking "what happens next?"

- Looks for Change over Time: sees today's events as a result of past trends and a harbinger of future ones;

- Sees Self as Part of the System: looks for influences from within the system, focusing less on blame and more on how the structure (or set of interrelationships) may be influencing behaviour;

- Embraces Ambiguity: holds the tension of paradox and ambiguity, without trying to resolve it quickly;

- Finds Leverage: knows that solutions may be far away from problems and looks for areas of leverage, where a small change can have a large impact on the whole system,

- Watches for Win/Lose Attitudes: is wary of "win/lose" mindsets, knowing they usually makes matters worse in situations of high interdependence.

**12 Habits of Mind:** Reproduced from *Connected Wisdom: Living Stories about Living Systems* by Linda Booth Sweeney (SEEDS Publishers, 2009).

# Appendix D: Habits of a Systems Thinker

| Seeks to understand the big picture | Observes how elements within systems change over time, generating patterns and trends | Recognizes that a system's structure generates its behavior |
| --- | --- | --- |
| **Identifies the circular nature of complex cause and effect relationships** | **Makes meaningful connections within and between systems** | **Changes perspectives to increase understanding** |
| **Surfaces and tests assumptions** | **Habits of a Systems Thinker** | **Considers an issue fully and resists the urge to come to a quick conclusion** |
| **Considers how mental models affect current reality and the future** | **Uses understanding of system structure to identify possible leverage actions** | **Considers short-term, long-term and unintended consequences of actions** |
| **Pays attention to accumulations and their rates of change** | **Recognizes the impact of time delays when exploring cause and effect relationships** | **Checks results and changes actions if needed: "successive approximation"** |
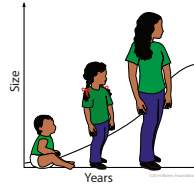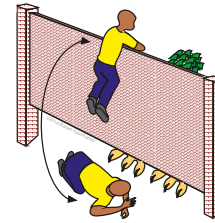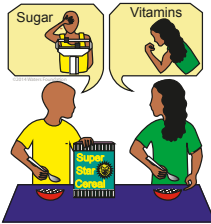
# Appendix E: Center for Ecoliteracy – Systems Thinking: Shifts in Perception

Thinking systemically requires several shifts in perception, which lead in turn to different waysto teach, and different ways to organize institutions and society. These shifts are not either/or alternatives, but rather movements along a continuum:

## From parts to the whole

With any system, the whole is different from the sum of the individual parts. By shifting focus from the parts to the whole, we can better grasp the connections between the different elements. Instead of asking students to copy pictures of the parts of a honeybee, an art teacher takes her class to the school garden, where they draw bees within the context of their natural setting.

Similarly, the nature and quality of what students learn is strongly affected by the culture of the whole school, not just the individual classroom. This shift can also mean moving from single-subject curricula to integrated curricula.

## From objects to relationships

In systems, the relationships between individual parts may be more important than the parts. An ecosystem is not just a collection of species, but includes living things interacting with each other and their nonliving environment.

In the systems view, the "objects" of study are networks of relationships. In the school or classroom, this perspective emphasizes relationship-based processes such as cooperation and consensus.

## From objective knowledge to contextual knowledge

Shifting focus from the parts to the whole implies shifting from analytical thinking to contextual thinking. This shift may result in schools focusing on project-based learning instead of prescriptive curricula. It also encourages teachers to be facilitators and fellow learners alongside students, rather than experts dispensing knowledge.

## From quantity to quality

Western science has often focused on things that can be measured and quantified. It has sometimes been implied that phenomena that can be measured and quantified are more important—and perhaps even that what cannot be measured and quantified doesn't exist at all. Some aspects of systems, however, like the relationships in a food web, cannot be measured.

Rather, they must be mapped. In the classroom, this shift can lead to more comprehensive forms of assessment than standardized tests.

## From structure to process

Living systems develop and evolve. Understanding these systems requires a shift in focus from structure to processes such as evolution, renewal, and change.

In the classroom, this shift can mean that how students solve a problem is more important than getting the right answer. It may mean that the ways in which they make decisions are as important as the decisions.

## From contents to patterns

Within systems, certain configurations of relationship appear again and again in patterns such as cycles and feedback loops. Understanding how a pattern works in one natural or social system helps us to understand other systems that manifest the same pattern.

For instance, understanding how flows of energy affect a natural ecosystem may illuminate how flows of information affect a social system.

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# Backgrounders
# for Area of Inquiry

# Climate Change

# Climate Change

## Introduction

Climate change is defined as a change in global or regional climate patterns that is largely due to increased levels of carbon dioxide and other greenhouse gases (GHGs) in the atmosphere. Under natural processes, these gases act like a blanket around the planet, insulating it from heat loss, regulating global temperatures, and helping to enable life to exist on Earth. However, human activities such as the extraction and burning of fossil fuels (oil, coal), deforestation, and wetland drainage are increasing the amount of GHGs in the atmosphere. There is now a larger amount of heat-trapping gases in the lower atmosphere, which is altering Earth's natural systems.

> "Climate change is not just a problem for the future. It is impacting us every day, everywhere."
>
> – Vandana Shiva

Growing concentrations of GHGs in the atmosphere are resulting in an increase in global average temperature, which in turn is leading to changes in Earth's climate patterns, such as changing precipitation patterns, and ultimately affecting the health and well-being of ecosystems and the human societies that depend on them. The impacts that climate change have had and will continue to have on our natural and social environments are complex and are a cause for great concern. Most importantly, climate change is caused by us and it affects all of us. It is a long-term problem that is difficult to solve given its global nature (as GHGs are emitted by all countries), its intimate relationship with the global economy, and uncertainty regarding its specific impacts over time on our economies, societies, and natural systems.

There are two primary types of strategies that governments and communities use to deal with climate change:

- Mitigation strategies: strategies that help to reduce the drivers of climate change either by reducing the release of GHGs into the atmosphere (such as by using new technologies or improving public transit systems) or by removing GHGs from the atmosphere (such as by planting trees, which use carbon dioxide to grow) (see *mitigation*) (IPCC, 2012).

- Adaptive strategies: strategies that enable people to plan for how changes in historical climate conditions (temperature, rainfall, length of the growing season) will have an impact on our built environment, economic activities, health, and biodiversity. This could be building new

floodways and dykes for places that traditionally have not seen flooding in the past but are now flood-prone areas (IPCC, 2012).

In response to the effects of climate change, many countries, communities, businesses, and individuals are all working to raise awareness on climate issues, expand the use of existing green technologies, and update policies in recognition of our new, less predictable climate of the future.

In the past decade climate change has become a topic of focus in the media and among the general public, but it has already been discussed for some time by scientists, government officials, and private sector companies. Below is a brief timeline of events:

- In 1972, the first UN Conference on the Human Environment took place in Stockholm, Sweden. Through this conference it was recognized that humans influence their environment and that all people have the basic human right to live a dignified life with emphasis on well-being, and all people bear the responsibility to protect and improve the environment for present and future generations (UNEP, 1972).

- In 1987, the Brundtland Commission released a report called *Our Common Future*. The Brundtland Report defines sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. This definition of sustainable development is still agreed upon today. The Montreal Protocol was also adopted in 1987. This agreement aimed to protect the ozone layer by reducing the production and consumption of ozone-depleting substances (some of which are also GHGs) that could be released into the atmosphere (UNEP Ozone Secretariat).

- In 1988, the Intergovernmental Panel on Climate Change (IPCC) was established by the United Nations Environment Programme and the World Meteorological Organization. The IPCC provides authoritative scientific, technical, and socio-economic information on the risks, impacts, and adaptation options associated with climate change.

- In 1992, the United Nations Framework Convention on Climate Change (UNFCCC) is adopted in Rio de Janiero, Brazil, during the Earth Summit; it came into effect in 1994. It marked international recognition of the existence of climate change and is intended to stabilize GHG concentrations "at a level that would prevent dangerous anthropogenic (human-induced) interference with the climate system." (IPCC, 2007).

- In 1997, a protocol to the UNFCCC was adopted in Kyoto, Japan, and entered into effect in 2005. The Kyoto Protocol broke new ground by establishing legally binding targets that required industrialized countries to reduce their GHG emissions. However, the targets were

not met by a number of developing countries (including Canada) and the release of GHGs continued to rise.

- In 2007, the IPCC released its fourth Assessment Report, which documented observed increases in global average temperatures and other signs of an already changing climate. It also tracked the continuing increase in global GHG emissions from human activities since pre-industrial times, noting a 70% increase between 1970 and 2004 (IPCC, 2007).

- In 2013, the IPCC released its fifth Assessment Report, which stated with 95 percent confidence that humans are the main cause of current global warming, and likely the cause of all global warming over the past 60 years. This was considered to be an important milestone, as there was now scientific evidence to support these claims.

- In September 2015, the international community adopted the Sustainable Development Goals, of which Goal 13 calls on all countries to "take urgent action to combat climate change and its impacts."

- In December 2015, 195 member countries of the UNFCCC adopted the Paris Agreement, the first legally binding climate agreement in which all countries (developed and developing) agreed to take actions to limit the rise in global average temperature to well below 2°C above pre-industrial levels.

- As of 2017, the record for the warmest recorded year has been broken three years in a row.

For more information, visit http://unfccc.int/essential_background/items/6031.php
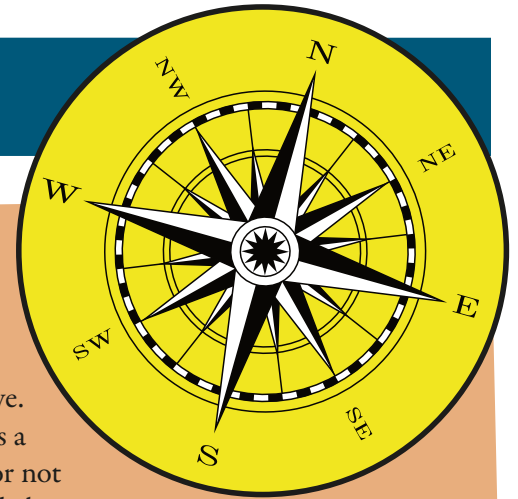
## Exploring the Issues

Research on climate change can be looked at from both a pure science (e.g., biology/chemistry, etc.) and social science perspective. It is important that inquiry research, as with all research, ensures a quality evaluation of all the sources used to determine whether or not information is fact or opinion. The following are some suggested climate change–related issues for inquiry.

### Complexity and Uncertainty

There is uncertainty about how the climate will change in the future, in part because the degree of global warming will depend on the speed and extent to which there is reduction in GHG emissions. There is also uncertainty regarding the social and economic consequences of climate change. This makes planning for future climate risks at the local and international levels difficult.

### The Resource Use Paradox

There is a paradox being played out that human well-being, as considered by most, is dependent on the ability of economies to prosper. Conversely, this prosperity is determined by increased consumption of primary resources (e.g., oil, lumber, crops, etc.). As these resources, many of which are non-renewable, are consumed, a burden is placed on the environment, which in turn causes impacts on the same human well-being the economy is trying to improve.

For example, we cannot extract/use all fossil fuels without causing severe climate change. As it becomes more expensive to extract fossil fuels, we recognize how dependent some economies are on the extractive industry. This is evident through job losses in areas where the local economy is dependent on the extractive industry (we can see this in Alberta since mid-2015).

### Costs – Social, Economic, Environmental

Environmental costs, according to the OECD, are "costs connected with the actual or potential deterioration of natural assets due to economic activities" (OECD).

Traditionally economists, finding it difficult to place a dollar value on the environment, have externalized the costs associated with negative impacts on the environment. Externalizing a cost means that the financial burdens resulting from damage to the environment (e.g., atmospheric emissions from industry that degrade air quality and can cause respiratory problems) are not borne by the persons causing the damage but by others (such as taxpayers) who are affected by the damage (Trucost). This situation raises questions regarding how to understand the full cost of economic activities (like building a house or driving a car), whether polluters should pay for the damage that they cause directly and/or indirectly, and how to more equitably share the costs.

## Essential Questions

Inquiry questions related to climate change issues may include the following:

- How do we know climate change is occurring?
- What major activities are producing the GHGs contributing to climate change?
- How does the media influence the way we see climate change?
- Who is affected most by changing weather patterns in Canada and globally?
- What is the difference between climate change and global warming?
- What efforts are being taken locally and globally to help stop/slow down climate change?
- What actions can we take now to reduce the risk posed by changing climate conditions and sea level rise?
- How do different countries view the threat posed by climate change and to respond to the changes expected to occur (i.e., developed countries with histories of emissions versus less developed countries wanting to industrialize vs. small island states)?

## Industrialized versus Developing Nations

### Who is affected? How are they affected?

While human activities in all countries around the world contribute to GHG emissions, it is the industrialized nations such as China, USA, and India that produce the most emissions. Agreements such as the Kyoto Protocol and the Paris Agreement aim to decrease overall GHG emission levels. The Kyoto Protocol was developed with the recognition that developed countries historically were responsible for higher levels of GHG emissions and should thus be more responsible for curbing them. This concept is called "common but differentiate responsibility." Under the Paris Agreement, all countries have agreed to take actions to reduce their emissions consistent with their individual capacities.

All countries around the world will experience climate change in one way or another, but the type of risks that they are facing and their capacity to adapt to changes differs.

Developing countries, already dealing with a variety of social, economic, and political issues, have less capacity to adapt to changes in climate and increases in extreme weather events. Developed countries are obligated under the UNFCCC to provide support to help developing countries adapt to climate change (UNFCCC, 2014b). The issue of how much support should be provided is still under debate.

### Rural Livelihoods

Currently almost 80 percent of poor people around the world depend on agriculture for their livelihood. Many of these farmers cultivate marginal lands and have limited access to essential inputs such as quality seed, implements, fertilizers, and irrigation. As a result of increased variability and intensity of weather patterns and global temperatures, agricultural livelihoods and food supplies are becoming increasingly vulnerable and unpredictable. Staple food prices have been increasing steadily over the past decade with a distinct spike in 2008, which resulted in a global food crisis.

### Gender

When we consider the ways in which climate change affects society, we need to consider the importance of gender in this equation. In most instances, especially within developing countries,

women are more vulnerable to the effects of climate change than men. In part, this is because they make up a larger percentage of the world's poor, often have less access to education, less political voice, are less mobile, and are more reliant on livelihoods based on natural resources (such as fishing) (UNWomen). For example, women are increasingly responsible for agricultural production as men migrate to urban centres in search of better economic activities, but often lack access to credit, agricultural extension support, and technology that would help them increase crop production and their adaptive capacity.

For more information, see *UN WomenWatch Factsheet* at www.un.org/womenwatch/feature/climate_change/downloads/Women_and_Climate_Change_Factsheet.pdf

## Ecosystems

As the climate changes, ecosystems are placed under greater stress. While plants and animals have traditionally adapted to environmental changes over time, the climate is now changing at a faster rate, making it more difficult for some species to adapt at the same pace, resulting in a loss of biodiversity in the ecosystem. Biodiversity is an important factor in ecosystem health. As the number and types of species are depleted, ecosystems become increasingly more vulnerable to climate change (EPA, 2010).

As an example, we can look to Lake Winnipeg, where over the past several decades the ecosystem's health has degraded drastically. Some of the main environmental issues contributing to the lake's declining health include nutrient loading (that is, large amounts of phosphorous and nitrogen entering the system) and the introduction of foreign invasive species. These nutrients cause an increase in the instance of algae blooms, which furthers the production of toxins in the water that can affect other aquatic species and humans (Environment Canada and Manitoba Water Stewardship).
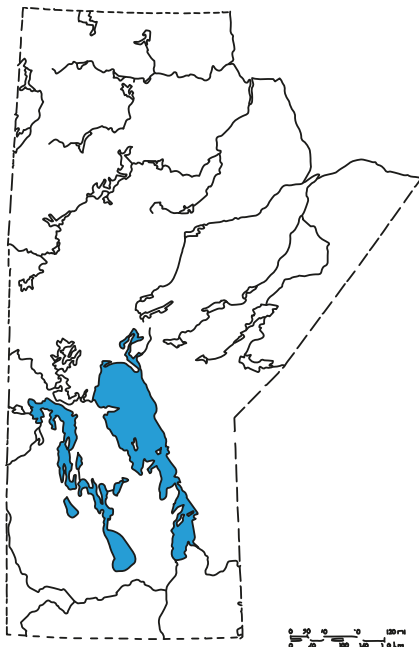
Zebra mussels (an invasive species) were discovered in Lake Winnipeg in 2013. Scientists do not yet know what the effects of zebra mussels will be on the lake, but it could mean a reduction in algae (not the blue-green algae growing as a result of nutrient loading) that other species need for food as well as a reduction in native mussel populations. According to the Lake Winnipeg Foundation, in 10 years, a 90 percent loss in native mussel species populations can be expected (Lake Winnipeg Foundation). Both zebra mussels and blue-green algae in the lake are placing large amounts of stress on the ecological balance of the lake's ecosystem, making it more vulnerable to future changes in the local climate.

For more information on zebra mussels in the lake, see www.lakewinnipegfoundation.org/zebra-mussels-101

Source: Lake Winnipeg Foundation

## Climate Change and Food Security

The impacts climate change has on food security are complex and varied. Because of population growth and dietary changes, food needs are increasing rapidly. According to the United Nations Food and Agriculture Organization (FAO), food needs will increase by 60 percent by 2050. The challenge set before the international community sees the need to improve food security globally, while at the same time reducing the amount of GHGs that the agriculture sector produces (industrialized agriculture is a significant contributor to GHG emissions globally).

The balance between food security and more sustainable production can be met in two ways. The first is to reduce the amount of GHGs emitted into the atmosphere by adapting technologies and agriculture techniques to reduce emissions and account for the impacts of climate change. The second is to create improved food distribution networks that reduce the amount of food lost and wasted on a global scale. Currently, one-third of the food the world produces falls into these categories. Wasted and lost food not only account for about eight percent of total GHG emissions each year, but also place an enormous strain on our collective ability to ensure food security for all people based on our abilities to produce a limited amount of food each year (FAO).

## Climate Change Adaptation

Adaptation involves changing behaviour in order to adjust to the surrounding environment to reduce its negative effects on health and well-being, and to take advantage of opportunities that these changes might create. Climate adaptation is an essential concept in relation to climate change. As environments change, societies also need to react to new circumstances. Adaptation can be passive or reactionary to a change, or it can anticipate potential change and act in advance to reduce vulnerability to the environment.

Also important to this topic is the issue of adaptive capacity. The IPCC (2012) regards adaptive capacity as "the combination of strengths, attributes and resources available...that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities." The adaptive capacity of a community, company, or country is determined by non-climatic factors, such as economic, demographic, governance, and environmental factors. Countries that have weak health care systems, degraded ecosystems, poorly functioning economies, and limited infrastructure, and that are not peaceful have limited adaptive capacity and therefore are more likely to be negatively affected by climate change.

For more detailed information on this subject, see www.iisd.org/cckn/pdf/va_foundation_final.pdf

**DYK?**

## Did You Know?

According to the 5th Climate Change Report from the IPCC (2014), it is clear increases in GHGs have been greatly influenced by economic and population growth and are "extremely likely" to be the main cause of observed global warming since the mid-20th century. Some noticeable consequences of increased GHGs include extreme weather events, decreases in extreme cold temperatures, increases in extreme high temperatures, increases in sea levels, and increases in the number of heavy precipitation events in many regions around the world. (ECCC)

Climate change brings a range of risks to health, from deaths in extreme heat to changing patterns of infectious diseases. (WHO)

Distribution of greenhouse gas emissions by economic sector, Canada, 2013

Waste and other (54 Mt)
Agriculture (75 Mt)
Industry (76 Mt)
Electricity (85 Mt)
Buildings (86 Mt)
Oil and gas (179 Mt)
Transportation (170 Mt)

Source: ECCC, 2017.

Global food loss and waste accounts for about eight percent of total GHG on a yearly basis. In 2015, one-third of all the food produced in the world was lost or wasted, accounting for CDN 3.7 trillion per year, including environmental and social costs. (FAO)

Deforestation and forest degradation account for approximately 10–11 percent of global GHG emissions. Logging and fires increased GHG emissions from 0.4Gt $CO_2$ in the atmosphere to 1.0 Gt between 1990 and 2015. (FAO)

People from the island nation of Tuvalu in Polynesia became the first climate refugees in 2014. The nation is situated on a low-lying island in the South Pacific. The population was forced to migrate due to rising sea levels threatening their communities. This island people were given residency in New Zealand during the summer of 2014 because rising tides and encroachment of salt water into their drinking water supply prevented them from returning to live on their island. (Allen)

## Thought-Provoking Quotations

"Men argue. Nature acts."
    – Voltaire

"The race is now on between the techno-scientific and scientific forces that are destroying the living environment and those that can be harnessed to save it.... If the race is won, humanity can emerge in far better condition than when it entered, and with most of the diversity of life still intact."
    – Edward O. Wilson

"One of the biggest obstacles to making a start on climate change is that it has become a cliché before it has even been understood."
    – Tim Flannery

"The more clearly we can focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction."
    – Rachel Carson

"One way to open your eyes is to ask yourself, "What if I had never seen this before? What if I knew I would never see it again?"
    – Rachel Carson

"To leave the world better than you found it, sometimes you have to pick up other people's trash."
    – Bill Nye

"Climate change is a result of the greatest market failure the world has seen. The evidence on the seriousness of the risks from inaction or delayed action is now overwhelming...The problem of climate change involves a fundamental failure of markets: those who damage others by emitting greenhouse gases generally do not pay...".
    – Nicholas Stern

## Making a Difference

| Name | How they make a difference |
|---|---|
| **Nicholas Stern** | A celebrated economist, Nicholas Stern has been the chair of the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science since 2008. In 2006, Stern produced a report called "The Stern Review Report on the Economics of Climate Change." This report has helped to bridge the spheres of economics and the environment and how they interact with each other, bringing them into the international public forum. |
| **James Hansen** | James Hansen is a professor in the department of Earth and Environmental Sciences at Columbia University, where he is director of the Program on Climate Science, Awareness and Solutions. In 1988, he gave a testimony to U.S. Congress on climate change, which helped to spread awareness about global warming.<br>James Hansen at Columbia University: www.columbia.edu/~jeh1/ |
| **Christiana Figueres** | Christiana Figueres is a Costa Rican diplomat, appointed as executive secretary of the UNFCCC in 2010. In 1995, Figueres founded the NGO, Center for Sustainable Development of the Americas (CSDA). Figueres was also a member of the Costa Rican negotiating team at the UNFCCC between 1995–2009 and played an instrumental role in convening and running the COP21 in Paris in 2015.<br>Christiana Figueres' personal webpage: http://christianafigueres.com/ |
| **David Suzuki** | David Suzuki has been speaking out about the dangers of climate change and the importance of environmental sustainability for over 30 years. While his work focuses mainly on Canadian issues, Suzuki is well known internationally for his environmental activism. He has worked as a broadcaster with the CBC *The Nature of Things,* as well as other science related programs such as *Quirks and Quarks* and *Science Magazine*. He has written and directed many influential environmental books and documentaries. The David Suzuki Foundation was started in 1990 and has been advocating for sustainable practices in government and industry and has carried out large public education campaigns.<br>David Suzuki Foundation: www.davidsuzuki.org/ |

# Climate Change

| Name | How they make a difference |
|------|----------------------------|
| **Al Gore** | After a long political career in the U.S. government, Al Gore has taken a stand on climate change and has become one of the most influential activists of our time. He speaks internationally on the subject and has written numerous books and documentaries. The most well-known of these is *An Inconvenient Truth* (2006), a documentary that exposed the undeniable effects of climate change to the American people and the world. For his work on environmental advocacy, Gore won the Nobel Prize in 2007 and shared a prize from the Intergovernmental Panel on Climate Change. Al Gore: www.biography.com/people/al-gore-9316028#bush-v-gore |
| | Also see: Tedtalk: *Al Gore: New thinking on the climate crisis* (2008). https://www.ted.com/talks/al_gore_s_new_thinking_on_the_climate_crisis |
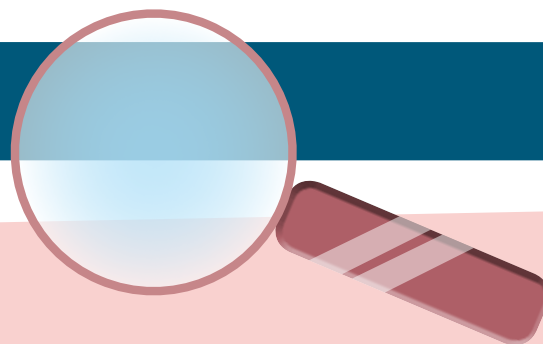
## Glossary

For additional glossary terms referring to climate change, please refer to the IPCC glossary of terms. Available online at https://www.ipcc.ch/pdf/special-reports/srex/SREX-Annex_Glossary.pdf

**Climate Change Adaptation:**
Climate change adaptation refers to any actions in the social, economic, and political spheres, taken to help communities cope with a changing climate as a response to or in preparation of changes occurring in the surrounding natural environment.
*The Victorian Centre for Climate Change Adaptation Research* has provided additonal definitions, available online at www.vcccar.org.au/climate-change-adaptation-definitions

**Carbon Markets:**
A trading system through which countries may buy or sell units of greenhouse gas emissions in an effort to meet their national limits on emissions, either under the Kyoto Protocol or under other agreements, such as that among member states of the European Union.
(OECD)

**Carbon Footprint:**
The total amount of greenhouse gases that are emitted into the atmosphere each year by a person, family, building, organization, or company. A personal carbon footprint includes greenhouse gas emissions from fuel that an individual burns directly, such as by heating a home or riding in a car. It also includes greenhouse gases that come from producing the goods or services that the individual uses, including emissions from power plants that make electricity, factories that make products, and landfills where trash gets sent.
(EPA, n.d.)

**Carbon Sequestration:**
Terrestrial, or biologic, carbon sequestration is the process by which trees and plants absorb carbon dioxide, release the oxygen, and store the carbon. Geologic sequestration is one step in the process of carbon capture and sequestration (CCS), and involves injecting carbon dioxide deep underground where it stays permanently.
(EPA, n.d.)

**Climate:**
It is a long-term average that describes the kind of weather or characteristic meteorological conditions you can expect in an area, region, province, or country. The climate is the synthesis of day-to-day weather conditions in a particular area and is represented by the collection of statistics over a period of time—often 30 years or more.
(ECCC, 2013)

**Climate Change:**
Refers to "any significant change in the measures of climate lasting for an extended period of time. In other words, climate change includes major changes in temperature, precipitation, or wind patterns, among other effects, that occur over several decades or longer." (EPA, n.d.)
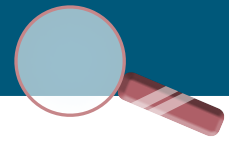
**Divestment:**

The opposite of *investment*. Divestment involves selling off assets in a company or other institution.

**Drought:**

"A drought is an extended period of dry weather which lasts longer than normal and leads to measurable losses in businesses such as farming."
(ECCC, 2013)

**Eco-system:**

"Any natural unit or entity including living and non-living parts that interact to produce a stable system through cyclic exchange of materials." (EPA, n.d.)

**El Niño:**

"El Niño is Spanish for "little boy" and it is what local South American fisherman call a warmer than usual current along the western coast of that continent at Christmas time. Most years, the strong and prevailing trade winds blow westward, dragging the warmest surface waters across the Pacific to Australia and Indonesia. But every 2 to 7 years, these trade winds weaken or change direction. This allows the warm waters to change direction and head toward the coast of South America, increasing water temperatures there as much as 5°C. This causes changes in atmospheric pressure which, in turn, trigger a shift in global weather patterns. La Niña, which is Spanish for "little girl," is a pool of cooler than normal water that replaces the warmer than normal El Niño current off the west coast of South America. It may be as much as 2°C lower than the average sea surface temperature of 28°C. In contrast to El Niño, La Niña

brings colder winters to western Canada and Alaska and drier, warmer weather to the American south-east." (ECCC, 2013)

**Forecast:**

"A forecast provides a description of the most likely weather conditions one is likely to encounter in the near future. The public forecast includes information about the temperature and probability of precipitation, and may also include cloud cover, wind speed, and other weather phenomena." (ECCC, 2013)

**Global Warming:**

"The increase in the surface temperature of the earth. This term is most often used to describe the warming that the earth is experiencing as a result of increased emissions of greenhouse gases (GHGs)." (MSS)

**Greenhouse Effect:**

"This term describes the warming of the lower atmosphere caused by atmospheric gases such as water vapour, carbon dioxide and methane containing the heat from the earth's surface. The natural greenhouse effect keeps the surface temperature of the earth warmer than it would be if all the radiation from the sun escaped immediately." (ECCC, 2013)

**Greenhouse Gas** (GHG):

"Any gas that absorbs infrared radiation in the atmosphere is a GHG. These include: carbon dioxide ($CO_2$), methane ($CH_4$), Nitrous oxide ($N_2O$), Hydroflurocarbons (HFCs), perfluorocarbons (PFCs), Sulphur hexafluoride ($SF_6$), water vapor ($H_2O$) and ozone ($O_3$)." (MSS)
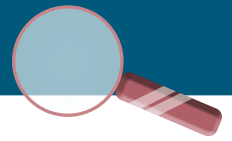
**Mitigation:**

Climate change mitigation, according to the United Nations Environment Program (UNEP) includes "efforts to reduce or prevent emissions of GHGs. This can mean using new technologies and renewable energies, making older equipment more energy efficient or changing management practices or consumer behaviour..." (UNEP, n.d.)

**Ozone:**

"Ozone is a pungent-smelling, slightly bluish gas which is a close chemical cousin to oxygen. About 90 per cent of the earth's ozone is located in a natural layer high above the surface of the globe in region of the atmosphere called the stratosphere. Here, it protects the earth and all that lies within it from the harmful effects of the sun's ultra-violet radiation by absorbing much of it". (ECCC, 2013)

**Sustainable Development:**

The concept of sustainable development comes from the Brundtland Commission report *Our Common Future* (1987): "development which meets the needs of current generations without compromising the ability of future generations to meet their own needs". This means improving the standard of living by protecting human health, conserving the environment, using resources efficiently and advancing long-term economic competitiveness. (WCED)

## Resources

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BBC News. *A Brief History of Climate Change.*
"BBC News environment correspondent Richard Black traces key milestones, scientific discoveries, technical innovations and political action."
www.bbc.com/news/science-environment-15874560

The Nature Conservancy. *What's My Carbon Footprint?*
The Nature Conservancy works "to protect the lands and waters that plants and animals need to survive—for us and for future generations." It has provided a carbon footprint calculator that students can use to get an idea of how much carbon they are responsible for releasing into the atmosphere.
www.nature.org/greenliving/carboncalculator/

Carbon Market Institute. *Home Page.*
"The Carbon Market Institute (CMI) is an independent membership-based not-for-profit organisation. As the peak body for carbon market participants, CMI has established an important role in the evolution of the carbon market in Australia. The Institute facilitates the networks, knowledge exchange and commercial interaction amongst key government policy makers and regulators, industry, financiers and investors, professional services companies and technology solution providers."
www.carbonmarketinstitute.org/

Carbon Trade Exchange (CTX). *Home Page.*
CTX creates commercialized technology platforms to operate spot exchanges in multiple global environmental commodity markets, including carbon, renewable energy certificates (RECs), and water, providing an exchange in which sellers and buyers are matched in a secure and efficient manner.
http://ctxglobal.com/

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> The David Suzuki Foundation "collaborates with Canadians from all walks of life, including government and business, to conserve our environment and find solutions that will create a sustainable Canada through science-based research, education and policy work."
>
> www.davidsuzuki.org/

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>
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> www.ipcc.ch/

International Institute for Sustainable Development. *Resilience.*

> "Shocks and stresses from climate change, environmental degradation, rapid demographic shifts and conflict are placing unprecedented pressures on ecosystems and livelihoods, potentially overwhelming existing capacities to respond. We believe that building resilience requires flexibility, diversity and redundancy so that ecological, social and economic systems are better able to withstand and adjust to change."
>
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> "For the science geek in everyone, Live Science offers a fascinating window into the natural and technological world, delivering comprehensive and compelling news and analysis on everything from dinosaur discoveries, archaeological finds and amazing animals to health,innovation and wearable technology."
>
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>
> www.gov.mb.ca/conservation/climate/climate_change.html

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> This page provides links to various websites that "provide reviewed listings of the best available student and educators resources related to global climate change, including NASA products."
>
> http://climate.nasa.gov/resources/education/

University of Winnipeg. *Prairie Climate Atlas*
> The Prairie Climate Atlas (2016) is a series of climate maps developed by Danny Blair and Ryan Smith of the University of Winnipeg.
> http://climate.uwinnipeg.ca/index.html

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> "The Sustainable Innovation Forum is an annual event brought to you by Climate Action and United Nations Environment Programme (UNEP)."
> www.cop21paris.org/

Nature Conservancy of Canada. *Home Page.*
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> www.natureconservancy.ca/

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# *Consumerism*

# Consumerism

## Introduction

Consumerism—the consumption of goods and services in excess of one's basic needs, usually in greater and greater quantities—is not a new phenomenon, and early examples of consumerism can be traced back to the first human civilizations. A significant consumerist tide hit Europe and North America in the mid-18th Century as a result of the Industrial Revolution and the transformation of Western Europe's and North America's economies. The mechanization of a number of processes freed a certain percentage of the workforce from their jobs in areas such as farming and fuelled both the Industrial Revolution and population growth. As industrialization created the conditions for mass production and mass consumption, for the first time in history immense quantities of manufactured goods were suddenly available to everyone at outstandingly low prices.

The Second World War brought about a strong need to conserve natural resources, as the demands of war led to resource scarcity. The U.S. Government launched a massive campaign urging citizens to be patriotic and to conserve resources, reuse and recycle, grow their own food, and to share. As a result, frugality became the new norm. However, in the 1950s, factories and labour, which were used to produce weapons, planes, and ships during the war, became idle and needed to be employed. The government wanted to end the population's penchant for austerity and induce them to consume. One of the architects of the consumer society was the retail analyst Victor Lebow, who remarked in 1955 that "Our enormously productive economy demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfactions, our ego satisfactions, in consumption. [...] We need things consumed, burned up, worn out, replaced, and discarded at an ever increasing pace." This line of thinking launched the consumer society and the growing conspicuous consumption of the United States (and Canada) that still prevails today.
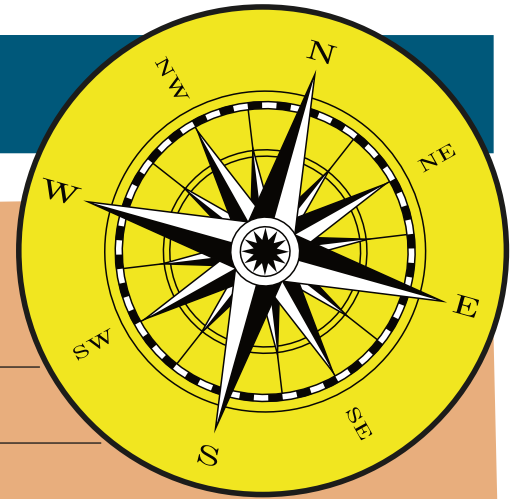
## Exploring the Issues

### What is consumerism? How is it described? What drives consumerism?

- History of consumerism
- Production of goods and services
- Variations of consumerism: affluence, conspicuous consumption, overconsumption, profligate consumption
- Quality of life versus acquiring goods
- Relationship between political and economic interests, investment decisions, production, marketing and distribution, and consumption

### What are the impacts of consumerism? How does it affect different countries? Canada? How does it affect you?

- Ecosystem degradation and ecological overshoot (when our demands exceed our capacity)
- Increased waste streams
- Planned obsolescence
- Unfulfilling jobs; working longer hours for reduced pay; job insecurity
- Economic inefficiencies
- Uneven resource distribution
- Growing disparities between the rich and poor
- Feelings of frustration, exclusion, of never having enough or being good enough
- "Keeping up with the Joneses"

### What is the role of media in fuelling consumerism? What images does society project about how people should live and what makes them happy?

- The people/corporations that own the media
- Advertising to children and other groups
- Advertising in public spaces
- Consumerism and social status
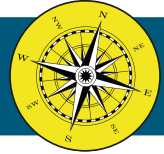
## What is progress? …wealth? …prosperity? …well-being? How are these measured?

- "Needs" versus "wants"
- Maslow's hierarchy of needs
- Overconsumption and underconsumption
- Alternatives to Gross Domestic Product (GDP): Genuine Progress Indicator; Ecological Footprint; Gross National Happiness; Human Development Index; Satisfaction with Life Index; Index of Sustainable Economic Welfare; Living Planet Index

## Solutions and Moving Forward

- Social movements and initiatives: anti-consumerism; culture jamming/"subverting"
- Alternative lifestyles: voluntary simplicity; frugality; downshifting; green living; LOHAS (lifestyles of health and sustainability)
- The positive story of moving away from consumerism: time for friends and family; better health; more fulfilling lives; more efficient and resilient economies; better global relations
- Better product design and closed-loop systems that promote "clean production": cradle-to-cradle; biomimicry; industrial ecology; design for sustainability
- Collaborative consumption or "what's mine is yours" (renting, swapping, sharing)
- Community centres and attractive public spaces; progressive urban design
- Cheap, comfortable, and reliable public transportation
- Education for sustainable consumption and citizenship
- Re-localization of the economy

## Exploring the Issues

- Consumer-based economies
- Capitalism and free market economies
- Citizen responsibilities and decisions
- Corporate responsibilities and decisions
- Culture of entitlement
- Culture of credit
- Culture of excess
- Commoditization of Indigenous cultures
- Impact of branding, marketing, and advertising
- Mass media manipulation
- Corporate sponsorship
- Product placement
- Perceived/planned obsolescence
- Lifestyle and health issues (e.g., obesity, chemical intolerances, allergies, illnesses, sedentary lifestyles)
- Energy and natural resource depletion
- Generation of waste
- Petro-politics
- Corporate and consumer greed
- Sweatshops

## Essential Questions

Inquiry questions related to consumerism issues may include the following:

- How are the products and resources we consume actually produced? Where do they come from and who makes them? What happens to products when we're finished with them?
- What are the impacts on the environment of production and consumption in North America? ...on society? ...on people here and around the world? How does our consumption affect poorer people and nations?
- How do the media affect our thoughts and actions? Who/what influences our consumption choices? Whose needs are being met when we consume?
- Why does our society generally think of consumption as a good thing?
- What is a necessity and what is a luxury? How do we differentiate between "needs" and "wants?"
- Does consuming make us happy? What are the requirements for a "good life?"
- How do consumption habits change as societies change? How do these changes affect our relationships with other people, here and around the world?
- How does consumerism relate to our social status? How do our values around consumerism affect our relationships with others?
- What are the relationships among consumption, wealth, and population growth?
- What does it mean to be a consumer versus being a citizen?

DYK?
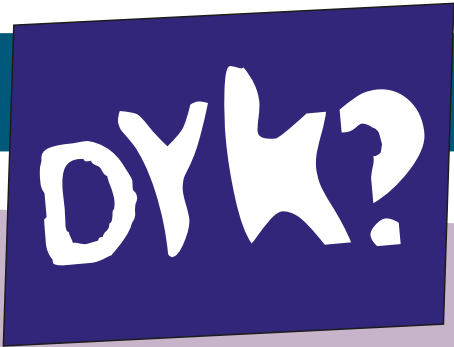
## Did You Know?

Canada's ecological footprint (measure of human demand on Earth's ecosystem) is seventh-largest per capita among 130 nations measured in WWF's *Living Planet Report*. Approximately half of this footprint is the result of carbon emissions from transportation, heating, and electricity production from fossil fuels, which contribute significantly to climate change. This is more than twice the average global citizen's consumption rate and would require approximately four Earths to sustain if every human were to live as Canadians do. (WWF)

The U.S. and Canada, with 5.2% of the world's population, are responsible for 31.5% of consumption. South Asia, with 22.4% of the population, is responsible for 2% of consumption. (Worldwatch Institute, 2004)

"Globally, the 20% of the world's people in the highest-income countries account for 86% of total private consumption expenditures—the poorest 20% a minuscule 1.3%. More specifically, the richest fifth consume 45% of all meat and fish, the poorest fifth consume 5%

■ consume 58% of total energy, the poorest fifth consume less than 4%

■ have 74% of all telephone lines, the poorest fifth have 1.5%

■ consume 84% of all paper, the poorest fifth consume 1.1%

■ own 87% of the world's vehicle fleet, the poorest fifth own less than 1%"

(UNDP, p. 2)

| Annual expenditures on luxury items compared with funding needed to meet basic needs | | | |
|---|---|---|---|
| **Product** | **Annual expenditure ($US)** | **Social or economic goal** | **Additional annual investment needed to achieve goal** |
| Makeup | $18 billion | Reproductive health care for all women | $12 billion |
| Pet food in Europe and the United States | $17 billion | Elimination of hunger and malnutrition | $19 billion |
| Perfumes | $15 billion | Universal literacy | $5 billion |
| Ocean cruises | $14 billion | Clean drinking water for all | $10 billion |
| Ice cream in Europe | $11 billion | Immunizing every child | $1.3 billion |

(Worldwatch Institute, 2004, p. 10)

"In the past three decades, one-third of the planet's natural resources base has been consumed." (Hawken, et al., 1999)

"…75 per cent of the major marine fish stocks are either depleted, overexploited, or being fished at their biological limit." (WEHAB Working Group, p. 7)

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The western world spends more on luxury products than it would cost to achieve the UN's Millennium Development Goals. (Worldwatch Institute, 2004)

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"Each person in the United States makes 4 1/2 pounds of garbage a day. That is twice what they each made 30 years ago." (The Story of Stuff Project, n.d.)

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"For every one garbage can of waste you put out on the curb, 70 garbage cans of waste were made upstream to make the junk in that one garbage can you put out on the curb." (The Story of Stuff Project, n.d.)

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"Some 4 billion PET recyclable bottles end up in the U.S. waste stream each year, costing cities some $70 million in cleanup and landfill costs. A plastic water bottle can take up to 1000 years to degrade in a landfill; when plastic is burned in incinerators, it releases dioxins, some of the most harmful human-made chemicals that exist." (The Story of Stuff Project, 2010)

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"Between 10 and 15 percent of the price of a bottle of water goes to advertising costs. Effective marketing of bottled water has contributed to undermining confidence—and investment—in public tap water and encouraging underfunding of public agencies." (The Story of Stuff Project, 2010)

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"Numbers from Nutrition Business Journal put the organic food and beverage market in the U.S. at $29.2 billion in 2011, with growth projected at 9.4%, as compared to an anticipated growth in the low single digits for conventional food and beverages." (Daniells)

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**DYK?**

"Organic Monitor estimates that organic food and drink sales worldwide reached almost $64 billion in 2012." (Soil Association, p. 20)

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"In 2006, people around the world spent $30.5 trillion on goods and services, and in 2008, they purchased 68 million vehicles, 85 million refrigerators, 297 million computers, and 1.2 billion cell phones." (Worldwatch Institute, 2010, p. 4)

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"The world extracts the equivalent of 112 Empire State Buildings from the earth every single day." (Worldwatch Institute, 2010, p. 4)

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## Thought-Provoking Quotations

"We are not going to be able to operate our Spaceship Earth successfully nor for much longer unless we see it as a whole spaceship and our fate as common. It has to be everybody or nobody."
— Buckminster Fuller

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"Growth for the sake of growth is the ideology of the cancer cell."
— Edward Abbey

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"Educational and cultural institutions, governmental agencies, financial institutions, and even the family itself changed their meaning and function to promote the consumption of commodities."
— Richard Robbins

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"The only reason a great many American families don't own an elephant is that they have never been offered an elephant for a dollar down and easy weekly payments."
— Mad Magazine (Benett et al.)

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"There must be more to life than having everything!"
— Maurice Sendak

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"The world will no longer be divided by the ideologies of "left" and "right," but by those who accept ecological limits and those who don't."
— Wolfgang Sachs (Potter)

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"Change is disturbing when it is done to us, exhilarating when it is done by us."
— Rosabeth Moss Kanter

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"We need new thinking, new leadership, and innovation to create a post-carbon economy. Our goal is not to undo industry, but to remake it into a force for sustainable wealth generation."
   – Jigar Shaw (Lovins et al.)

"The most critical task facing humanity today is the creation of a shared vision of a sustainable and desirable society, one that can provide permanent prosperity within the biophysical constraints of the real world in a way that is fair and equitable to all of humanity, to other species, and to future generations."
   – Robert Costanza

"We are human beings, not human havings."
   – Mike Nickerson

"Anything you cannot relinquish when it has outlived its usefulness possesses you. And in this materialistic age, a great many of us are possessed by our possessions."
   – Mildred Lisette Norman

## Making a Difference

| Name | How they make a difference |
|---|---|
| **One Earth Initiative Society** | The One Earth Initiative is a non-profit research and advocacy group based in Vancouver. We seek to transform unsustainable consumption and production patterns locally, nationally, and internationally. One Earth is engaged in convening policy, communication and action initiatives to transform the consumer lifestyle—and the economic, industrial production, financial, political, social, and cultural systems that support it. http://oneearthweb.org/ |
| **The Story of Stuff Project** | The Story of Stuff Project was created by Annie Leonard to leverage and extend the impact of the original *Story of Stuff* film. The project aims to amplify public discourse on a series of environmental, social, and economic concerns and increase the Story of Stuff community's involvement in efforts to build a more sustainable and just world. The online community includes over 150,000 activists, and they partner with hundreds of environmental and social justice organizations worldwide to create and distribute films, curricula, and other content. www.storyofstuff.com/ |
| **Center for the New American Dream** | The Center for the New American Dream helps Americans consume responsibly to protect the environment, enhance quality of life, and promote social justice. They work with individuals, institutions, communities, and businesses to conserve natural resources, counter the commercialization of our culture, and promote positive changes in the way goods are produced and consumed. Its focus is on shifting our understanding of well-being away from "stuff" and back to opportunity and relationships. www.newdream.org/ |
| **Interface** | Interface is a sustainable flooring company dedicated to eliminating by 2020 any negative impact of its business on the environment. Its mission is to serve as a model to the business community and to show the industrial world what sustainability is in all its dimensions: people, process, product, place, and profit. Its business model runs on what they have termed the "7 Fronts of Sustainability." www.interfaceglobal.com/ |

# Consumerism

| Name | How they make a difference |
|------|----------------------------|
| **Adbusters** | Based in Vancouver, *Adbusters* is a not-for-profit, reader-supported magazine with a circulation of 120,000. It is concerned with the erosion of our physical and cultural environments by commercial forces. *Adbusters* offers incisive philosophical articles, as well as activist commentary from around the world addressing issues ranging from genetically modified foods to media concentration. In addition, its annual social marketing campaigns like Buy Nothing Day and Digital Detox Week have made it an important activist networking group. www.adbusters.org/ |

## Glossary

**Capitalism:**

Capitalism is a way of organizing an economy so that the things that are used to make and transport products (such as land, oil, factories, ships, etc.) are privately owned by individual people and companies rather than by the government. Capitalism is the dominant economic structure around the world, particularly in developed countries.

**Carbon footprint:**

A carbon footprint is the total set of greenhouse gas (GHG) emissions caused by an organization, event, or product. It is often expressed in terms of the amount of carbon dioxide (or the equivalent of other greenhouse gases) that is emitted. (UNEP)

**Carrying capacity of ecosystems:**

The capacity of an ecosystem to support healthy organisms while maintaining its productivity, adaptability, and capability for renewal. Carrying capacity is a quantitative concept: key factors for human populations include numbers and density, affluence, and technology. Concerns focus on the depletion rates of renewable and non-renewable resources and the build-up of hazardous wastes in the environment. (UNEP)

**Choice editing:**

*Choice editing* is the term used to describe instances where governments and/or businesses influence the choices made by consumers. For example, a decision by a government to remove all non-energy efficient light bulbs removes the consumers' choice to buy light bulbs that are not energy efficient. (UNEP)

**Citizen:**

A citizen is a person who legally belongs in a country and has the rights and protection of that country and its government.

**Consumer information:**

Consumer information is the characteristics of products and transactions that are made available to consumers/users to allow them to make informed choices, both at the time of their initial acquisition and afterwards. Consumer information makes it easier for consumers to compare goods and services, increases transparency and accountability, and reduces search costs. It can be used not only to inform but also to influence consumer behaviour. (UNEP)

**Consumer preferences:**

Consumer preferences are a consequence of consumer choice, guiding the acquisition of a good or service on the basis of the information available. This may include the preference not to consume at all. (UNEP)

**Consumer:**

A consumer is an everyday purchaser of a good or service in retail or the end user in the distribution chain of a good or service. (UNEP)

# Consumerism

**Conspicuous consumption:**

Conspicuous consumption is lavish spending on goods and services acquired mainly for the purpose of displaying income or wealth and maintaining social status.

**Corporate social (and environmental) responsibility:**

Corporate social and environmental responsibility is the responsibility of an organization for the impacts of its decisions and activities on society and the environment.

**Credit:**

Credit is a contractual agreement in which a borrower receives something of value now and agrees to repay the lender at some later date. When consumers purchase something using a credit card, they are buying on credit (receiving the item at that time and paying back the credit card company later). Whenever people finance something with a loan (such as an automobile or a house), they are using credit in that situation as well.

**Eco-efficiency:**

Eco-efficiency is a management philosophy that encourages business to search for environmental improvements that also yield economic benefits. It focuses on business opportunities and allows companies to become more environmentally responsible and more profitable. It is a key business contribution to sustainable societies. Eco-efficiency is achieved by the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts. (UNEP)

**Ecodesign:**

Ecodesign is an approach to designing a product that aims at reducing the environmental impact (and energy consumption) of the product throughout its entire life cycle. (UNEP)

**Ecolabels:**

Ecolabels are labelling systems for food and consumer products, which are often voluntary but can be mandated by law, like for major appliances and cars in North America. Ecolabels make it easier for consumers to choose more environmentally friendly products.

**Education for sustainable consumption:**

Education for sustainable consumption (ESC) aims to provide knowledge, values, and skills to enable individuals and social groups to become actors of change towards more sustainable consumption behaviours. The objective is to ensure that the basic needs of the global community are met, quality of life for all is improved, and inefficient use of resources and environmental degradation are avoided. ESC is therefore about providing citizens with appropriate information and knowledge on the environmental and social impacts of their daily choices, as well as providing workable solutions and alternatives. ESC integrates fundamental rights and freedoms, including consumers' rights, and aims at protecting and empowering consumers in order to enable them to participate in the public debate and economy in an informed, confident, and ethical way. (UNEP)

**Entitlement:**

The state of having the right to something not equally enjoyed by others.

**Fair trade:**

Fair trade is an organized social movement and market-based approach (voluntary) that aims to help producers in developing countries make better trading conditions and promote sustainability.

The movement helps to ensure that producers, including employees, receive a share of the total profit, commensurate with their input, and that social conditions are improved, particularly those of employees in the absence of developed structures for social services and worker representation (trade union representation, for instance). (UNEP)

**Greenwashing:**

Greenwashing is the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service. Companies are notably accused of greenwashing when they spend more time and money claiming to be "green" through advertising and marketing than actually implementing business practices that minimize their environmental impact. (UNEP)

**Luxury:**

A luxury is something inessential but conducive to pleasure and comfort—often something expensive or hard to obtain. In western culture, luxuries are often considered to be "necessities." (UNEP)

**Planned obsolescence:**

Planned obsolescence is a business practice of deliberately outdating an item (much before the end of its useful life) by stopping its supply or service support and introducing a newer (often incompatible) model or version. Its objective is to prod the consumer or user to abandon the currently owned item in favour of the "upgrade." It is a common practice in the computer industry for technical reasons, but can also be accomplished by making the old product "unfashionable." (BD)

**Product placement:**

The paid inclusion of commercial products in video and print media for advertising purposes.

**Subvertising:**

The practice of making a parody of corporate and political advertisements in order to make a statement.

**Sufficiency:**

The concept of "sufficiency" has emerged over the years as an alternative economic model to consumerism and a necessary component of sustainable lifestyles. It is a philosophical ideal that offers the possibility of a higher quality of life while simultaneously reducing the human impact on the natural world. (UNEP)

## Sustainable consumption and production:

Sustainable production and consumption is the use of goods and services that respond to basic needs and that bring a better quality of life while minimizing the use of natural resources, toxic materials, and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations. (UNEP)

## Sustainable lifestyles:

A "sustainable lifestyle" is a way of living that is enabled both by efficient infrastructure (public transportation, green buildings, etc.), goods and services (fair trade and organic products, etc.), and by individual choices and actions (walking instead of driving) that minimize the use of natural resources and generation of emissions, wastes and pollution, while supporting equitable socio-economic development and progress for all. (UNEP)

## 3 Rs (Reduce, Reuse, Recycle):

The 3 Rs form the foundation of the waste hierarchy by order of importance: reducing means choosing to use things with care to reduce the amount of waste generated; reusing involves the repeated use of items or parts of items that still have usable elements; recycling means the use of waste itself as a resource. Some people add other "Rs" to the original three: renewing; respecting; refusing (to acquire or purchase certain goods or products).

## Voluntary simplicity:

Voluntary simplicity encompasses a number of different voluntary practices to simplify one's lifestyle in an effort to make one's personal and social project the pursuit of other, non- materialistic purposes. Simplifiers gain more satisfaction out of lifelong learning, public life, volunteering, community participation, sports, cultural activities, and observing or communing with nature. (UNEP)

## Suggested Resources

### Books

Klein, Naomi. *No Logo: Taking Aim at the Brand Bullies.* Toronto, ON: Knopf Canada, 2000.

De Graaf, John, David Wann, and Thomas H Naylor. *Affluenza: The All-Consuming Epidemic.* San Francisco, CA: Berrett-Koehler Publishers, 2002.

Quart, Alissa. *Branded: The Buying and Selling of Teenagers.* New York, NY: Perseus Books, 2003.

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Starke, Linda (ed.). *State of the World 2004—Special Focus: The Consumer Society.* New York, NY: Norton/Worldwatch, 2004.

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Meadows, Donella H. *Thinking in Systems.* London, UK: Earthscan, 2008.

Jackson, Tim. *Prosperity without Growth: Economics for a Finite Planet.* London, UK: Earthscan, 2009.

Leonard, Annie. *The Story of Stuff: How Our Obsession with Stuff Is Trashing the Planet, Our Communities, and Our Health—and a Vision for Change.* New York, NY: Free Press, 2010.

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Durning, Alan. *Stuff: The Secret Lives of Everyday Things.* Seattle, WA: Sightline, 1997.

Robin, Vicki. *Your Money or Your Life: 9 Steps to Transforming Your Relationship with Money and Achieving Financial Independence: Revised and Updated for the 21st Century.* London, UK: Penguin, 2008.

Friedman, Thomas L. *Hot, Flat, and Crowded 2.0: Why We Need a Green Revolution—and How It Can Renew America.* New York, NY: Farrar, Straus and Giroux, 2008.

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Lindstrom, Martin. *Buyology: Truth and Lies about Why We Buy.* New York, NY: Broadway Books, 2008.

Robbins, John. *The New Good Life: Living Better Than Ever in an Age of Less.* New York, NY: Ballantine Books, 2010.

Nickerson, Mike. *Life, Money and Illusion: Living on Earth as if We Want to Stay.* Gabriola Island, BC: New Society, 2009.

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## Websites

**UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production**
"The Centre provides scientific support to clients from the private and the public sector, such as UNEP and other organizations in the field of SCP. This support includes the development, testing, implementation and monitoring of concrete projects, especially in developing countries, which enables these countries to leapfrog to sustainable consumption and production patterns using life cycle thinking and regional perspectives as guiding principles."
www.scp-centre.org/home.html

**Youth Xchange**
"Planet Earth is facing a severe global crisis. Inefficient consumption and production patterns are putting an unbearable strain on our planet. *youthxchange* is designed to help trainers and individuals to understand and communicate on sustainable lifestyles."
www.youthxchange.net

**Global Footprint Network**
Global Footprint Network is "an international think tank that provides ecological footprint accounting tools to drive informed policy decisions in a resource-constrained world."
www.footprintnetwork.org

**Interview with Richard Heinberg from the Post Carbon Institute**
Interview with Richard Heinberg, an American journalist and educator who has written extensively on energy, economic, and ecological issues, including oil depletion.
http://transitionvoice.com/2011/03/interview-richard-heinberg/

**Interview with James Howard Kunstler: "The old American dream is a nightmare"**

Interview with James Howard Kunstler, an American author, social critic, public speaker, and blogger.

www.grist.org/sprawl/2011-03-09-james-howard-kunstler-we-need-a-new-american-dream

**Buy Nothing Day**

"Buy Nothing Day is an international day of protest against consumerism celebrated annually just after Thanksgiving."

www.adbusters.org/campaigns/bnd

**Good Stuff? – A Behind-the-Scenes Guide to the Things We Buy**

"Have you ever wondered where chocolate comes from, if antibacterial soap is good for your family, or how to recycle an old computer? If you've had these or other questions about the environmental and social impacts of the products you buy and use, *Good Stuff* is for you. It contains many of the tips, facts, and links you'll need to start making more informed purchases that benefit your health and the environment."

www.worldwatch.org/bookstore/publication/good-stuff-behind-scenes-guide-things-we-buy

**Affluenza**

A one-hour television special that explores the high social and environmental costs of materialism and overconsumption. You can learn more about the show, get an "affluenza diagnosis," and check out resources for treatment at

www.pbs.org/kcts/affluenza/

**The Hairy-Nosed Wombat**

In this video, a hairy-nosed wombat explains what life on earth should be like.

www.youtube.com/watch?v=l5i714FbDJw

**The Solutions Journal**

Solutions for a sustainable and desirable future.

www.thesolutionsjournal.com/

**Yes! Magazine**

*"YES! Magazine* reframes the biggest problems of our time in terms of their solutions. Online and in print, we outline a path forward with in-depth analysis, tools for citizen engagement, and stories about real people working for a better world."

www.yesmagazine.org/

**What is Gross National Happiness?**
Gross National Happiness is explained in 3 minutes by Morten Sondergaard.
www.youtube.com/watch?v=7Zqdqa4YNvI

## Curriculum

Facing the Future: *Buy, Use, Toss? A Closer Look at the Things We Buy* (free download)
"This two-week unit provides multiple entry points to help students think critically about consumption, while building math, science, and civil discourse skills."
https://www.facingthefuture.org/products/buy-use-toss-a-closer-look-at-the-things-we-buy?variant=13195327491

Lesson 1: Garbology

Lesson 2: Mapping the Impact (*Mapping and networking our varied impacts on the planet*)

Lesson 3: Drilling down to Sustainability (*Exploring what sustainability really means*)

Lesson 4: The Cost of Production

Lesson 5: On the Road to Retail (*Analyzing distribution and a product's externalities*)

Lesson 6: Why Buy? (*Considering values and the effects of advertising*)

Lesson 7: Defining Happiness (*What is the "good life?"*)

Lesson 8: It's a Dirty Job (*Designing a waste management plan*)

Lesson 9: A System Redesign (*Brainstorming a more sustainable economy*)

Lesson 10: Analyzing the Message (*Critically analyzing the Story of Stuff*)

**Understanding Sustainability: Two-Week Unit for Social Studies Grades 9–12**
(downloadable PDF)
*Understanding Sustainability* is an activity-based curriculum unit that contains eight engaging and inspiring lessons that help students build the connections among economy, history, democracy, and sustainability. Each lesson in the two-week unit is aligned with the National Council for the Social Studies curriculum standards for easy classroom integration.
www.facingthefuture.org/Curriculum/UnderstandingSustainabilityGrades912/tabid/461/Default.aspx

**Sightline Institute—Secret Lives of Everyday Things curriculum guide** (2000)
This curriculum package was developed by NEW BC, a non-profit organization based in Victoria, British Columbia, to accompany a 1997 book by Northwest Environment Watch (now Sightline Institute) called *Stuff: The Secret Lives of Everyday Things*. An entire web of connections and impacts is revealed behind those everyday items we normally don't even think about. In learning about their stuff, students will also explore new ways of looking at their world and make links among the environment, their society, and themselves.
www.sightline.org/research_item/stuff/

## Multimedia

**The Sustainability Project / 7th Generation Initiative**
An educational, non-profit organization that exists to collect, study, develop, and teach ideas, information, technologies, and customs that promote green values and lead toward a sustainable future.
www.sustainwellbeing.net/

**The Story of Stuff**
*The Story of Stuff* has fostered a community of over a million change-makers worldwide who are working to build a healthy and just planet. This site provides resources that explain how our "stuff" is produced, distributed, disposed of, etc., including our cosmetics, electronics, and bottled water. It also provides an overview and cap and trade, as well as additional information, downloads, activity guides, annotated scripts, FAQs, etc.
http://storyofstuff.org/
Discussion Guide:
https://www.nwf.org/~/media/PDFs/Eco-schools/annie_leonard_discussion_guide.ashx
Teaching Tools:
http://storyofstuff.org/resources/

**Consumerism! The Musical**
A short satire/song on excessive consumption.
www.youtube.com/watch?v=hGaOQKJik-s

**The Good Consumer**
A short film on expectations around consumption.
www.youtube.com/watch?v=A_ut93YYZu8&feature=related

# Consumerism

**Rachel Botsman**

In *The Rise of Collaborative Consumption,* Rachel Botsman "charts the growth of a movement that is transforming the way we consume and contribute."
https://www.thersa.org/discover/videos/event-videos/2011/02/the-rise-of-collaborative-consumption/

**David Harvey**

"In *RSA Animate: Crisis of Capitalism,* Harvey asks if it is time to look beyond capitalism, towards a new social order that would allow us to live within a responsible, just and humane system."
https://www.thersa.org/discover/videos/rsa-animate/2010/06/rsa-animate---crisis-of-capitalism/

**David Biello.**

"So are the world's environmental ills really a result of the burgeoning number of humans on the planet—predicted to reach at least nine billion people by 2050? Or is it more due to the fact that although the human population has doubled in the past 50 years, we have increased our use of resources fourfold?"
http://blogs.scientificamerican.com/observations/environmental-ills-its-consumerism-stupid/

**Chris Jordan**

His art explores the phenomenon of American consumerism.
http://chrisjordan.com/gallery/camel/#gastrolith

**Edward Burtynsky**

Edward Burtynsky's original photography depicts global industrial landscapes.
www.edwardburtynsky.com/

## Films

**The Age of Stupid**

*"The Age of Stupid* stars Oscar-nominated Pete Postlethwaite as a man living in the devastated future world of 2055, looking back at old footage from our time and asking: why didn't we stop climate change when we had the chance?"
www.spannerfilms.net/films/ageofstupid

**The Corporation**

"Provoking, witty, stylish and sweepingly informative, *The Corporation* explores the nature and spectacular rise of the dominant institution of our time."
www.thecorporation.com/

### What Would Jesus Buy?

"An examination of the commercialization of Christmas in America while following Reverend Billy and the Church of Stop Shopping Gospel Choir on a cross-country mission to save Christmas from the Shopocalypse (the end of humankind from consumerism, over-consumption and the fires of eternal debt). The film also delves into issues such as the role sweatshops play in America's mass consumerism and big-box culture."

https://freedocumentaries.org/documentary/what-would-jesus-buy

### The Greed Game

"As the credit crunch bites and a global economic crisis threatens, Robert Peston reveals how the super-rich have made their fortunes, and the rest of us are picking up the bill."

http://topdocumentaryfilms.com/super-rich-greed-game/

### The 11th Hour

"With contributions from over 50 politicians, scientists, and environmental activists, including former Soviet leader Mikhail Gorbachev, physicist Stephen Hawking, Nobel Prize winner Wangari Maathai, and journalist Armand Betscher, and Paul Hawken, the film documents the grave problems facing the planet's life systems. Global warming, deforestation, mass species extinction, and depletion of the oceans' habitats are all addressed. The film's premise is that the future of humanity is in jeopardy."

https://freedocumentaries.org/documentary/the-11th-hour

### The Cost of a Coke

This documentary takes a critical look at Coca-Cola and the actions it has taken to become the world's most popular soda.

http://topdocumentaryfilms.com/the-cost-of-a-coke/

### Money as Debt: International Bankers Own the World and This is How

"This highly informative and easy to understand film covers just about everything that isn't taught in school regarding the corrupt banking system. It explains how these institutions get away with robbing the unsuspecting public by creating monetary policies designed to enslave society, while keeping the system in a perpetual state of rising debt."

https://freedocumentaries.org/documentary/money-as-debt-international-bankers-own-the-world-and-this-is-how

### Online Lessons

**Group Activities from the Story of Stuff**

"The Story of Stuff is a 20-minute film that takes viewers on a provocative and eye-opening tour of the real costs of our consumer driven culture-from resource extraction to iPod incineration."

www.agnt.org/earth/group_activities.pdf

**Facing the Future: Engaging Students through Global Issues – Activity-Based Lessons and Action Projects**

"Motivate students to take creative action in their local and global communities. *Engaging Students through Global Issues* is an activity-based lesson book that bridges social studies, science, and environmental studies to help students make connections between complex global issues and sustainable solutions."

https://www.facingthefuture.org/products/engaging-students-through-global-issues-activity-based-lessons-and-action-projects?variant=13633649219

Lesson 4: Making Global Connections (*Connect issues using everyday materials.*)

Lesson 7: Systems are Dynamic (*Explore dynamic systems through movement.*)

Lesson 12: Watch Where You Step! (*Create a web diagram of all the resources they use in their everyday lives and the mark or "footprint" this consumption leaves on the environment.*)

Lesson 22: Livin' the Good Life? (*Develop indicators to measure quality of life and conduct a survey of peers and adults to obtain data for their indicators.*)

Lesson 38: Metaphors for the Future (*Explore world views and mental models.*)

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# Environment

# Environment

## Introduction

The publication in 1962 of Rachel Carson's book *Silent Spring* is often cited as the beginning of the environmental movement in North America and around the world. The book was a wake-up call regarding the potentially grave consequences of uncontrolled and widespread pesticide use, not only for animals but also for humans. A decade later, in 1972, the book *Limits to Growth* was published, which modelled the consequences of a rapidly growing world population and the extraction of finite natural resources. It has had a huge impact on how thought leaders and policy makers think about environmental issues. That same year, the United Nations hosted the Conference on the Human Environment in Stockholm, Sweden, to discuss the state of the global environment and to emphasize the need to protect renewable and non-renewable resources, as well as to make the link between resource depletion and poverty. Finally, the widely famous picture of the Earth from space was taken by the Apollo 17 spacecraft that year and quickly became a symbol for "spaceship Earth," our fragile and finite home floating in a sea of blackness. This image made it obvious that what we do to our environment, we ultimately do to ourselves.

As environmental concerns, such as air and water pollution and resource depletion, grew as a result of increasing economic activity and a growing human population, so did concerns about the anthropogenic effects on the natural environment in relation to other issues such as health and well-being, poverty, and social and economic development. To further explore these relationships, the United Nations convened the World Commission on Environment and Development (WCED) in 1983, which led to the publication of *Our Common Future*, a seminal report that recognized the global nature of environmental problems and the necessity to achieve sustainable development, defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." At the core of the report is the concept of "needs," particularly of the poor, for whom development must be a priority in order for them to have their needs met; there is also the concept of limitations imposed by technology and social organization.

*Our Common Future* laid the groundwork for the 1992 Earth Summit, officially known as the UN Conference on Environment and Development, which led to the adoption of *Agenda 21*, a comprehensive blueprint for action to combat poverty and address the root causes of environmental degradation, including climate change, desertification, the loss of biodiversity, and the sound management of toxic chemicals and hazardous waste. *Agenda 21* acknowledges that poverty and environmental degradation are closely interrelated, and that "while poverty results in certain kinds of environmental stress, the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production, particularly in industrialized countries, which is a matter of grave concern, aggravating poverty and imbalances" (Ch. 4.3). Highlighting these unsustainable patterns of consumption and production was important because it is a recognition that global climate change, increasing fresh water scarcity, the loss of biodiversity and animal habitat, the loss of productive agricultural land, the irreversible destruction of ecosystems, and the increasing amounts of waste and toxins emitted are symptoms of humanity's unsustainable economic activity. As such, environmental issues (impacts) can

only be addressed successfully over the longer term if the underlying patterns—including the behaviours and mindsets that give shape to these patterns—are addressed. The Earth Summit also led to the recognition of some key principles, including the precautionary principle (Principle 15): acting in such a way as to avoid serious or irreversible harm in the face of risks to health or the environment; and the principle of common but differentiated responsibilities (Principle 7): both rich and poor countries need to implement sustainable development, but the developed countries acknowledge the particular responsibility that they bear in light of the pressures their societies place on the global environment and of the technologies and financial resources they command.

Ecological trends have gotten worse, not better, despite follow-up conferences and summits, including the UN Millennium Summit (2000) that led to the adoption of the Millennium Development Goals, which is a global action plan to achieve the eight anti-poverty goals by a 2015 target, and the UN World Summit on Sustainable Development (2002), which examined progress since the Rio Conference.

Humanity's unsustainable use of the planet's finite renewable and non-renewable resources and destruction of "sinks" has today created a state of ecological overshoot at the global scale, in a context where nearly a third of humanity still lives in poverty and has yet to benefit from the promises of development and economic growth. As the UN Millennium Ecosystem Assessment (2005) concludes, "Human activity is putting such strain on the natural functions of Earth that the ability of the planet's ecosystems to sustain future generations can no longer be taken for granted." The Ecological Footprint, a metric that was developed in Canada in the mid-1990s that allows us to calculate human pressure on the natural world, shows that if the entire world population were to live like the average Canadian, some three additional planets like Earth would be necessary to support these lifestyles.

The political challenge today is to implement the solutions necessary that are commensurate with the scale of the environmental problems humanity is facing, so that meeting the needs of the world's poor can be achieved within the ecological carrying capacity of Earth. One overarching barrier to meaningful change is overcoming the notion that the environment is "out there," separate from human beings and their economy, and that social and economic systems can exist independently from the environment. The trans-disciplinary field of ecological economics addresses the interdependence and co-evolution of human economic systems and natural systems, and frames the economy as a subsystem of the planetary ecological system. Such a lens underscores the importance of conserving natural resources, protecting ecosystems, and minimizing pollution, as this is the foundation of both human economic activity and of health and well-being.
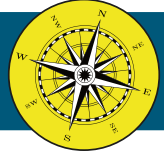
## Exploring the Issues

Healthy ecosystems, preservation of biodiversity; water management, quality; limited resources versus unlimited development/growth; responsible resource extraction; energy efficiency and alternative energy sources; environmental and human disasters (prevention, response, individual, and collective); environmental degradation and technological solutions; sustainable cities, design, urban planning; alternative transportation; standard of living versus quality of life; carrying capacity; energy consumption, carbon footprint, travel and transportation alternatives, alternative energy sources; stewardship and equitable sharing of natural resources; economic and environmental refugees; population increase, distribution, movement, migration, urbanization; politics and economics of climate change (e.g., impact of industrialization, responsibilities of developed/less-developed economies, Kyoto Accord; Arctic sovereignty); Gaia hypothesis, systems thinking, interconnectedness of human and natural systems, living sustainably, etc.

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**The environment: What is it? How does it function?**
**What does it provide humans (and other species)?**

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- Ecosystem functioning and the importance of biodiversity
- The Gaia Hypothesis—Earth as a system
- Services provided by the environment—water, air, food, etc.
- Aesthetic, cultural, and spiritual values in nature
- Attitudes toward the environment—anthropocentrism versus "deep ecology" or other belief systems

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**Our impact on the environment: How do we affect our environment? …in Canada? …globally? What are our assumptions about our relationship with the environment?**

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- Drivers of resource use
- Impacts of economic growth, as well as overconsumption and under-consumption, on the environment
- Carbon footprints and ecological footprints
- Fossil fuel dependence, climate change—economics and politics preventing change
- Resource depletion—reliance and faith in technology, resource use in moderation
- Industrial agriculture

- Unsustainable consumption and production patterns and waste

- Population growth

- Disconnect between the environment and our daily lives, and between cultural and social perspectives on the environment and our lifestyles

### Environmental Solutions and Moving Forward

- Low-carbon economy, reducing dependence on fossil fuels

- Sustainable cities and urban design

- Innovative, clean transportation

- Changing our production and consumption patterns, reducing waste throughout the product life cycle

- Renewable energies—solar, wind, geothermal, biofuels, and other alternatives

- Local food and organic, sustainable agriculture

- Traditional environmental knowledge

- Reconnecting to the environment and what it provides

- Ways of engaging on environmental issues with different actors/stakeholders like government, business, and civil society (including individuals, non-profit/non-governmental organizations, and Indigenous communities)

## Essential Questions

Inquiry questions related to environment issues may include the following:

### The environment: What is it? How does it function? What does it provide humans?

- How does the environment play a part in our daily lives?
- What does the environment provide us with?
- Where do our resources and energy come from?
- How is our economy linked to the environment?
- How does an ecosystem function? What happens when we disturb a system?
- How do we view our environment? What are our attitudes towards it? Does anyone "own" the environment?
- Does our understanding of the environment affect how we use it?

### Our impact on the environment: How do we affect our environment? …in Canada? …globally? What are our assumptions about our relationship with the environment?

- How do our lifestyles affect our environment? How have our lifestyles and impacts on the environment changed over time?
- How might economic growth affect the environment? How might a growing global population affect the environment? How might technology affect the environment?
- What do we do in Canada that negatively affects our environment? How do our actions here affect the environment in other parts of the world?
- What is the relationship between wealth and environmental degradation? …poverty and environmental degradation?
- What do you feel Canada's responsibilities are to other countries? What are our responsibilities in relation to stopping climate change?
- What environmentally destructive patterns are we "stuck" in, and why do we have trouble getting out of them? …at home? …in Canada? …globally?

## Environmental Solutions and Moving Forward

- How can we create a stronger understanding of the environment and its systems? How can we integrate knowledge of these systems into the way we live?

- What can we do personally do to protect the environment?

- What are some of the solutions we can implement now to prevent further environmental damage?

- Are new technologies a solution to our environmental problems?

- How do we talk about environmental issues? Who are the principal decision makers that can effect change?

- How should government, business, and citizens be working together to change the driving forces that create environmental problems?

DYK?

## Did You Know?

"In the past 50 years, humans have consumed more resources than in all previous history."
— U.S. EPA (p. ii)

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"Half the world's tropical and temperate forests are now gone."
— U.S. EPA (p. 5)

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"75% of marine fisheries are now overfished or fished to capacity."
— U.S. EPA (p.5)

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"Between 1950 and 2005, worldwide metals production grew sixfold, oil consumption eightfold, and natural gas consumption 14-fold. In total, 60 billion tons of resources are now extracted annually— about 50% more than just 30 years ago. Today, the average European uses 43 kilograms of resources daily, and the average American uses 88 kilograms."
— Worldwatch Institute (p. xxvi)

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"Of all fresh water not locked up in ice caps or glaciers, some 20% is in areas too remote for humans to access and, of the remaining 80%, about three-quarters comes at the wrong time and place—in monsoons and floods—and is not always captured for use by people. The remainder is less than 0.08 of 1% of the total water on the planet. Expressed another way, if all of Earth`s water were stored in a five-litre container, the available fresh water would not quite fill a teaspoon."
— Environment Canada

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"In 2010, it was estimated that the human population used 150% of the resources generated by the Earth in one year."
— One Earth (p. 3)

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## Thought-Provoking Quotations

"Let every individual and institution now think
and act as a responsible trustee of Earth, seeking
choices in ecology, economics and ethics that will
provide a sustainable future, eliminate pollution, poverty and violence, awaken the wonder of life
and foster peaceful progress in the human adventure."
        – John McConnell

"Industrialized, chemical-intensive agriculture and our globalized system of distributing food and
fibre are literally destroying the Earth, driving two billion farmers off the land, and producing
a product which is increasingly contaminated. That's why the wave of the future is organic and
sustainable, not GMO."
        – Ronnie Cummins, (Eldridge et al.)

"We find ourselves ethically destitute just when, for the first time, we are faced with ultimacy, the
irreversible closing down of the Earth's functioning in its major life systems. Our ethical traditions
know how to deal with suicide, homicide and even genocide, but these traditions collapse entirely
when confronted with biocide, the killing of the life systems of the Earth, and geocide, the
devastation of the Earth itself."
        – Father Thomas Berry

"Only when the last tree has been cut down,
Only when the last river has been poisoned,
Only when the last fish has been caught,
Only then will you find that money cannot be eaten."
        – Cree prophecy

"Climate change is a result of the greatest market failure the world has seen. The evidence on the seriousness of the risks from inaction or delayed action is now overwhelming. The problem of climate change involves a fundamental failure of markets: those who damage others by emitting greenhouse gases generally do not pay."
    – Nicholas Stern

"We're in a giant car heading towards a brick wall and everyone's arguing over where they're going to sit."
    – David Suzuki (n.d.)

"This is where everything begins and ends—the natural world. You get out here and you see how everything hangs together. And you feel part of it—you feel in touch with something sacred."
    – David Suzuki (2007)

"One reason many world leaders have difficulty responding to the environmental crisis is that the worst of the predicted effects seems decades away [while] millions of people are suffering in poverty right now. These are urgent problems. How do we at the same time acknowledge and confront a problem that seems to lie in our future?"
    – Al Gore

"In Indian Agriculture, women use up to 150 different species of plants (which the biotech industry would call weeds) as medicine, food, or fodder. For the poorest, this biodiversity is the most important resource for survival. . . . What is a weed for Monsanto is a medicinal plant or food for rural people."
    – Vandana Shiva

"All of humanity now has the option to 'make it' successfully and sustainably, by virtue of our having minds, discovering principles and being able to employ these principles to do more with less."
    – Buckminster Fuller

"The most important fact about Spaceship Earth: an instruction manual didn't come with it."
    – Buckminster Fuller

"We are not going to be able to operate our Spaceship Earth successfully nor for much longer unless we see it as a whole spaceship and our fate as common. It has to be everybody or nobody."
    – Buckminster Fuller

"How can we make the world work for 100 percent of humanity in the shortest possible time through spontaneous cooperation without ecological damage or disadvantage to anyone?"
    – Buckminster Fuller

"I learned very early and painfully that you have to decide at the outset whether you are trying to make money or to make sense, as they are mutually exclusive."
    – Buckminster Fuller

"The world will no longer be divided by the ideologies of left and right, but by those who accept ecological limits and those who don't."
    – Wolfgang Sachs (Potter)

Business as usual, government as usual, and perhaps even protest as usual are not giving us the progress needed to achieve sustainable development. Let's see if we can't work together to find better paths forward."
    – Paul Hohnen, Royal Institute of International Affairs (Strauss)

"Change is disturbing when it is done to us, exhilarating when it is done by us."
    – Rosabeth Moss Kanter

"You don't see something until you have the right metaphor to let you perceive it."
    – Thomas Kuhn

"Mother Nature doesn't do bailouts... We have been getting rich by depleting all our natural stocks—water, hydrocarbons, forests, rivers, fish and arable land—and not by generating renewable flows... ."
— Thomas Friedman

"The most critical task facing humanity today is the creation of a shared vision of a sustainable and desirable society, one that can provide permanent prosperity within the biophysical constraints of the real world in a way that is fair and equitable to all of humanity, to other species, and to future generations."
— Robert Costanza

"In the end, enjoying life's experiences is the only rational thing to do. You're sitting on a planet spinning around in the middle of absolutely nowhere. Go ahead, take a look at reality."
— Michael A. Singer

"The question of reaching sustainability is not about if we will have enough energy, enough food, or other tangible resources...The question is: will there be enough leaders in time?"
— Dr. Karl-Henrik Robèrt

"You have to think of environmental stress as kind of an underlying pressure, an almost tectonic stress within the society that increases the likelihood of violence but doesn't necessarily cause it by itself. It has to come with other things such as weak governments, availability of weapons, and also deep ethnic cleavages within a society that can make violence more likely. And then all of a sudden, you get a dramatic outbreak of riots in the streets."
— Thomas Homer-Dixon (Screenscope)

"The big issue on the planet is not just the fact that we're going from 6.7 billion people today to 9.2 billion. It's the number of people living an American lifestyle, eating American-sized Big Macs, living in American-sized houses, driving American-sized cars, on American-sized highways."
— Thomas Friedman (Screenscope)

## Making a Difference

| Name | How they make a difference |
|---|---|
| **The Worldwide Fund for Nature (WWF)** | "For more than 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by close to 5 million members globally. WWF's unique way of working combines global reach with a foundation in science, involves action at every level from local to global, and ensures the delivery of innovative solutions that meet the needs of both people and nature."<br><br>www.worldwildlife.org/who/index.htm |
| **Friends of the Earth International** | "FOEI is an extensive grassroots environmental network and campaigning on some of today's most urgent environmental and social issues. They work to challenge the current model of economic and corporate globalization, and promote solutions that will help to create environmentally sustainable and socially just societies. Their work covers issues such as climate justice and energies, food security and agriculture, forests and biodiversity, mining and water issues."<br><br>www.foei.org/ |
| **Greenpeace** | "Founded in Vancouver in 1971, Greenpeace today operates in more than 40 countries with headquarters in Amsterdam. They have more than 89,000 supporters in Canada and 2.9 million members worldwide. Greenpeace is an independent, campaigning organisation which uses non-violent, creative confrontation to expose global environmental problems, and to force the solutions which are essential to a green and peaceful future. Greenpeace's goal is to ensure the ability of the earth to nurture life in all its diversity. Therefore Greenpeace seeks to protect biodiversity in all its forms; prevent pollution and abuse of the earth's ocean, land, air and fresh water; end all nuclear threats and promote peace, global disarmament and non-violence."<br><br>www.youtube.com/watch?v=XLBDmhsDY3k<br><br>www.greenpeace.org/canada |

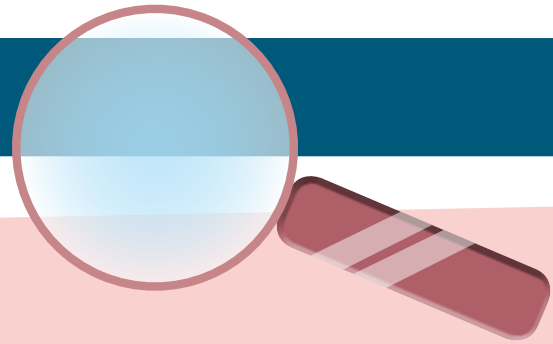| | |
|---|---|
| **David Suzuki Foundation (and David himself)** | "A Canadian organization founded by award-winning scientist, environmentalist, and broadcaster David Suzuki, the foundation works with government, business, and individuals to conserve our environment by providing science-based education, advocacy, and policy work, and acts as a catalyst for necessary social change. The foundation's vision is that, within a generation, Canadians act on the understanding that we are all interconnected and interdependent with nature."<br><br>www.davidsuzuki.org/ |
| **International Institute for Sustainable Development** | "The International Institute for Sustainable Development (IISD) is a Canadian-based, public policy research institute that has a long history of conducting cutting-edge research into sustainable development. IISD's story began in 1988 when Prime Minister Brian Mulroney announced Canada's plans to establish an international institute dedicated to advancing sustainable development at the United Nations. Through its head office in Winnipeg, Manitoba and its branches in Ottawa, Ontario; New York, NY; and Geneva, Switzerland IISD applies human ingenuity to help improve the well being of the world's environment, economy, and society."<br><br>www.iisd.org/ |
| **350.org** | "350.org is an international campaign that's building a movement to unite the world around solutions to the climate crisis, with the help of actors, artists, athletes, businesses and others. Their mission is to inspire the world to rise to the challenge of the climate crisis—to create a new sense of urgency and of possibility for the planet. Their focus is on reaching 350 parts per million $CO_2$. If we can't get below that, scientists say, the damage we're already seeing from global warming will continue and accelerate. But 350 is more than a number—it's a symbol of where we need to head as a planet."<br><br>www.350.org/en |
| **TckTckTck** | "The TckTckTck initiative is the face of the Global Campaign for Climate Action (GCCA), an unprecedented global alliance of more than 270 non-profit organizations all over the world. Their shared mission is to mobilize civil society and galvanize public support to ensure a safe climate future for people and nature, to promote the low-carbon transition of our economies, and to accelerate the adaptation efforts in communities already affected by climate change. Their website provides regular updates on climate change news, and activities that citizens can participate in to make a difference."<br><br>http://tcktcktck.org/ |

# Environment

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|---|---|
| **Global Footprint Network** | "The Global Footprint Network vision is a world where everyone can live well, within the means of one planet. Their programs are designed to influence decision makers at all levels of society and to create a critical mass of powerful institutions using the Ecological Footprint measurement to put an end to our overuse of the environment, and get our economies back into balance. Their Ten-in-Ten campaign is engaging national governments to establish the Ecological Footprint as a prominent, globally accepted metric as widespread as the GDP." <br><br> www.footprintnetwork.org/en/index.php/GFN/ |
| **Manitoba Eco-Network** | "The Manitoba Eco-Network promotes positive environmental action by connecting people and groups in our communities. We educate, we facilitate, we celebrate! Manitoba Eco-Network is an umbrella for environmental non-governmental organizations (ENGO's) throughout the province. We welcome individual, ENGO and associate members to our organization. <br><br> We are a registered charitable organization, and a regional affiliate of the Canadian Environmental Network, based in Ottawa." <br><br> http://mbeconetwork.org/ |
| **Earth Day Canada** | "Earth Day Canada (EDC) is a national environmental communications organization mandated to improve the state of the environment by empowering Canadians to achieve local solutions. Since 1991, EDC has been coordinating Earth Day/Earth Month events, and creating successful community programs and award-winning artistic and media projects. Earth Day's mission is to improve the state of the environment by empowering and helping Canadians to take positive environmental action." <br><br> www.earthday.ca/pub/ |
| **World Environment Day** | "World Environment Day (WED) is an annual event that is aimed at being the biggest and most widely celebrated global day for positive environmental action. WED activities take place all year round but climax on 5 June every year, involving everyone from everywhere. WED celebration began in 1972 and has grown to become the one of the main vehicles through which the UN stimulates worldwide awareness of the environment and encourages political attention and action." <br><br> www.unep.org/wed |

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|---|---|
| **Canadian Society for Ecological Economics (CANSEE)** | "CANSEE is the Canadian chapter of ISEE, the International Society for Ecological Economics. ISEE endeavours to facilitate understanding between economists and ecologists in pursuit of a vision of a sustainable future, through trans-disciplinary research and dialogue. We recognize that economies of communities, regions, and countries are imbedded in and dependent upon nature's capacity to sustain ecological goods and services for present and future generations. The CANSEE mandate is to promote an understanding of this reality through research, education and practice, and to inform policy development and decision-making in government, communities, businesses and other organizations. We believe that a world governed and grounded in sustainability and ecological economic principles and practices will lead to a sustainable future, for the common good." <br><br> www.cansee.org/ |

## Glossary

**Anthropogenic:**
Something caused by humans (e.g. anthropogenic climate change is a change in climate induced by human actions).

**Anthropocentrism:**
"Making decisions or examining situations solely on the basis of their effect on human beings, to the exclusion of consideration of other living things." (BC Ministry of Education)

**Biodiversity:**
"A large number and wide range of species of animals, plants, fungi, and microorganisms. Ecologically, wide biodiversity makes ecosystems stronger and more resilient to change." (NRDC)

**Biofuel:**
"A fuel produced from dry organic matter or combustible oils produced by plants." Examples of biofuel include alcohol (from fermented sugar), bio diesel from vegetable oil and wood. (WHO)

**Carbon Footprint:**
"A representation of the effect human activities have on the climate in terms of the total amount of greenhouse gases they produce (measured in units of carbon dioxide)." (ESD)

**Carbon Sequestration:**
The process of removing carbon from the atmosphere and depositing it in a reservoir.

**Carrying Capacity:**
"The total population an area is able to support given the quality of the natural environment and the prevailing technology available." (ESD)

**Climate Change:**
"A regional change in temperature and weather patterns. Current science indicates a discernible link between climate change over the last century and human activity, specifically the burning of fossil fuels." (NRDC)

**Composting:**
Biologically degrading materials such as leaves and manure to create a mixture of organic matter that is used to improve soil structure and provide nutrients.
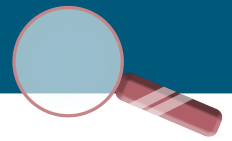
**Deforestation:**
Cutting down trees to use the land as something other than a forest.

**Ecosystem:**
An interconnected and symbiotic grouping of animals, plants, fungi, and microorganisms.

**Fossil Fuel:**
"A fuel, such as coal, oil, and natural gas, produced by the decomposition of ancient (fossilized) plants and animals." (NRDC)

**Greenhouse Gases:**

"Gases present in the atmosphere that trap heat from the sun and warm the earth. Such gases include carbon dioxide, methane, water vapour, nitrous oxide, ozone and halocarbons." (ESD)

**Ecological Footprint:**

"The area of land and water required to support a defined economy or human population at a specified standard of living indefinitely, using prevailing technology." (ESD)

**Food miles:**

"The number of miles food produce travels from 'plough to plate', that is from the place of production to consumption." (ESD)

**Industrial agriculture:**

"A type of modern farming that refers to the industrialized production of livestock, poultry, fish and crops." (NRDC)

**Life Cycle Assessment:**

"A way of measuring a product's full environmental costs, from raw material to final disposal." (NRDC)

**Natural Capital:**

"Natural capital can be defined as all of the raw materials and natural cycles on Earth." (ESD)

**Non-Renewable Resource:**

"A resource that is not replaced or only replaced very slowly by natural processes. Examples are precious metals." (ESD)

**Recycling:**

"The series of activities, including collection, separation, and processing, by which materials are recovered from the waste stream for use as raw materials in the manufacture of new products." (EPA)

**Renewable Energy:**

"Energy resources such as windpower and solar energy that can keep producing indefinitely without being depleted." (NRDC)

**Renewable Resource:**

"A resource that can be replenished at a rate equal to or greater than its rate of depletion. Examples of renewable resources include solar energy, trees, and soy-based products." (NRDCP)

**Sustainable Development:**

Has been defined as 'Development which meets the needs of the present without compromising the ability of future generations to meet their own needs'. ("Our Common Future," Report of World Commission on Environment and Development, commonly called the The Brundtland Report). It is a type of development that must account for not only economic benefits, but also environmental and social ones.

**Monocropping:**

The practice of growing the same crop on the same land year after year.

**Tar Sands:**

"A type of unconventional petroleum deposit found in large quantities in Canada and Venezuela consisting of a mixture of sand, water, clay, and an extremely viscous form of petroleum." (ESD)

**Traditional Ecological Knowledge (TEK):**

"TEK is place-based knowledge of a particular ecosystem, developed by the people who have been living in it - this includes knowledge of plant uses, system resilience, etc." (ESD)

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## Websites

**Worldwatch Institute State of the World Reports (updated annually)**
"Through research and outreach that inspire action, the Worldwatch Institute works to accelerate the transition to a sustainable world that meets human needs."
www.worldwatch.org/bookstore/state-of-the-world

**Center for Ecoliteracy**
The Center for Ecoliteracy "leads systems change initiatives, publishes original books and resources, facilitates conferences and professional development, and provides strategic consulting."
https://www.ecoliteracy.org/

**The Solutions Journal (print and online)**
"*Solutions* is a non-profit print and online publication devoted to showcasing bold and innovative ideas for solving the world's integrated ecological, social, and economic problems."
www.thesolutionsjournal.com/

**YES! Magazine – Powerful Ideas, Practical Actions (print and online)**
"YES! Magazine reframes the biggest problems of our time in terms of their solutions." It provides in-depth analysis, tools for citizen engagement, and stories about real people working for a better world.
www.yesmagazine.org/

**Green Teacher Magazine**

> "*Green Teacher* magazine offers perspectives on the role of education in creating a sustainable future, practical articles and ready-to-use activities for various age levels, and reviews of dozens of new educational resources."
> www.greenteacher.com/

**Worldchanging.com**

> An online magazine covering tools, models, and ideas for building a better future.
> www.worldchanging.com/

**The Indigenous Environmental Network**

> The Indigenous Environmental Network was established to educate and empower Indigenous Peoples to address and develop strategies to protect the environment, re-affirm traditional knowledge, and build healthy sustaining Indigenous communities.
> www.ienearth.org/home/

**Sustainable Table: Serving Up Healthy Food Choices**

> "Sustainable Table celebrates local, sustainable food, educates consumers about the benefits of sustainable agriculture and works to build community through food."
> www.sustainabletable.org/home.php

**WWF's Living Planet Report**

> WWF's annual *Living Planet Report* shows the scale of the environmental challenges our planet faces and tells you what you can do about it.
> http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/

## Curriculum

**Learning for a Sustainable Future**

> "Founded in 1991 by a diverse group of youth, educators, business leaders, government and community members, LSF is a non-profit Canadian organization that was created to integrate sustainability education into Canada's education system. LSF believes in socially, environmentally and economically sustainable society, with engaged citizens who think and act responsibly, today, and for generations to come. LSF's mission is to promote, through education, the knowledge, skills, values, perspectives, and practices essential to a sustainable future."
> http://www.lsf-lst.ca/

**UNESCO's Teaching and Learning for a Sustainable Future**

> "Teaching and Learning for a Sustainable Future demonstrates the principles of effective teaching and learning that are a necessary part of reorienting education towards a sustainable future. That is, the type of professional development experiences in *Teaching and Learning for a Sustainable Future* seeks to ensure that the 'medium'

for learning is a part of the 'message'. In order to achieve this goal, the learning experiences in *Teaching and Learning for a Sustainable Future* reflect three principles of effective professional development: academic rigour, experiential learning and reflection."
www.unesco.org/education/tlsf/

### GreenLearning Canada

"GreenLearning creates free online education programs about energy and sustainability that engage and empower students to create positive change for our evolving world."
www.greenlearning.ca

### Teachers' Guide to High Quality Educational Materials on Climate Change and Global Warming

"This guide points K–12 educators to the best sites for teaching about climate change: several that offer first rate background material, and others that include detailed lesson plans and experiments."
www.hdgc.epp.cmu.edu/teachersguide/teachersguide.htm

### The Environment and Resource Management

Province of Ontario. "The Environment and Resource Management, Grade 12: University/College Preparation." *The Ontario Curriculum, Grades 11 and 12: Canadian and World Studies*. Toronto, ON: Province of Ontario, 2015. 227–245. Available online at www.edu.gov.on.ca/eng/curriculum/secondary/2015cws11and12.pdf

### Ontario Ministry of the Environment E-Zone

"Resources for teachers and parents to teach children about the little actions they can take to help protect the environment."
https://www.ontario.ca/page/e-zone

### Toward a Sustainable Agriculture

"The curriculum consists of five modules:

■ Introduction to Sustainable Agriculture

■ Corn, Beans, and Burgers: field crops in sustainable agriculture

■ Flesh, Fish, and Fowl: animals in sustainable agriculture

■ Apples, Beets, and Zinnias: sustainable horticulture

■ A Growing Market: organic agriculture

Educators are welcome to adapt and reproduce sections of the curriculum for non-commercial use."
www.cias.wisc.edu/curriculum/

**Greening Schools**

No longer actively funded, "Greening Schools was a joint effort of the Illinois Environmental Protection Agency (IL EPA) and the Illinois Waste Management and Research Center (WMRC). The purpose of the project was to help schools provide a safe and healthy environment. The project was also designed to provide teachers with standards-based tools to introduce the concepts of waste reduction and pollution prevention to students."
http://greeningschools.org/resources/view_cat_teacher.cfm?id=133

**North American Association for Environmental Education**

'Ecology lesson plans designed for high school, middle school, and elementary school science teachers are downloadable here."
https://naaee.org/eepro/resources/ecology-lesson-plans

**Oxfam UK**

"Oxfam Education offers a huge range of ideas, resources and support for developing global learning in the classroom and the whole school. All of the resources here support Education for Global Citizenship – education that helps pupils understand their world and make a positive difference in it."
www.oxfam.org.uk/education

**Environment Canada** – EC Educator Resources - Provides access to featured lesson plans and links (divided for ages 6-12 and ages 13-18) -
http://www.on.ec.gc.ca/community/youth/ec-educators-e.html
Includes lesson plans and info about free educational programming that may take place in your area –
www.ec.gc.ca/education/default.asp?lang=En&n=D3D10112-1

## Films and Videos

**What is Ecological Literacy?**

This film provides a brief definition of ecoliteracy by David Orr.
https://www.youtube.com/watch?v=0tK6jogRMaY

**Free Documentaries: The Truth is Free**

"Freedocumentaries.org streams full-length documentary films free of charge, with no registration needed. For several films, we even offer the ability to watch trailers or to download the actual film.

The films are gathered by our researchers as we scour the web for well-produced videos and present them to our viewers. We adhere to all copyright laws and honor the wishes of the producers."

https://freedocumentaries.org/

### The Ultimate Roller Coaster Ride: A Brief History of Fossil Fuels

"Fossil fuels have powered human growth and ingenuity for centuries. Now that we're reaching the end of cheap and abundant oil and coal supplies, we're in for an exciting ride. While there's a real risk that we'll fall off a cliff, there's still time to control our transition to a post-carbon future."

www.postcarbon.org/the-ultimate-roller-coaster-ride-a-brief-history-of-fossil-fuels/

### Flow: For the Love of Water

"Irena Salina's award-winning documentary investigation into what experts label the most important political and environmental issue of the 21st Century—The World Water Crisis. Salina builds a case against the growing privatization of the world's dwindling fresh water supply with an unflinching focus on politics, pollution, human rights, and the emergence of a domineering world water cartel."

www.flowthefilm.com

### Hoot

"A young man moves from Montana to Florida with his family, where he's compelled to engage in a fight to protect a population of endangered owls."

www.imdb.com/title/tt0453494/

### An Inconvenient Truth

"Director Davis Guggenheim eloquently weaves the science of global warming with Al Gore's personal history and lifelong commitment to reversing the effects of global climate change in the most talked-about documentary at Sundance. An audience and critical favorite, *An Inconvenient Truth* makes the compelling case that global warming is real, man-made, and its effects will be cataclysmic if we don't act now."

https://www.youtube.com/watch?v=8ZUoYGAI5i0

### Darwin's Nightmare

"Darwin's Nightmare is a tale about humans between the North and the South, about globalization, and about fish."

www.darwinsnightmare.com/

### The 11th Hour

"With contributions from over 50 politicians, scientists, and environmental activists, including former Soviet leader Mikhail Gorbachev, physicist Stephen Hawking, Nobel Prize winner Wangari Maathai, and journalist Armand Betscher, the film documents the grave problems facing the planet's life systems. Global warming, deforestation,

mass species extinction, and depletion of the oceans' habitats are all addressed. The film's premise is that the future of humanity is in jeopardy."
https://freedocumentaries.org/documentary/the-11th-hour

### Food Inc.

"*Food, Inc.* unveils some of the sombre practices underpinning the American food industry, exploring how corporations place profits before consumer health, worker safety and the environment. This documentary argues that industrial production methods are not only inhumane, but they are also unsustainable from an economic and environmental standpoint."
http://documentary-movie.com/food-inc/

### Fuel

"Director Josh Tickell takes us along for his 11-year journey around the world to find solutions to America's addiction to oil. A shrinking economy, a failing auto industry, rampant unemployment, an out-of-control national debt, and an insatiable demand for energy weigh heavily on all of us. Fuel shows us the way out of the mess we're in by explaining how to replace every drop of oil we now use, while creating green jobs and keeping our money here at home. The film never dwells on the negative, but instead shows us the easy solutions already within our reach."
https://www.youtube.com/watch?v=GVBmWIGupxQ

### A Farm for the Future

Wildlife filmmaker Rebecca Hosking investigates how to transform her family's farm in Devon into a low-energy farm for the future and discovers that nature holds the key.
https://www.youtube.com/watch?v=3Lf9wJ4vWHc

### Ah...the Money, the Money, the Money (AKA The Battle for Salt Spring Island)

"This movie is about a logging war on Salt Spring Island. Salt Spring is a paradise located in British Columbia. The island attracts many people who want to get away from the Rat Race but are forced to deal with a company that now is logging the island where they live."
https://www.youtube.com/watch?v=IOrCr79ha7Y

### Champions of the Land

"Documentary look at the growth of the United States' environmental conservation movement, focusing on such pioneers as John Muir, Aldo Leopold, Bob Marshall, Rosalee Edge and Rachel Carson."Documentary look at the growth of the United States' environmental conservation movement, focusing on such pioneers as John Muir, Aldo Leopold, Bob Marshall, Rosalee Edge and Rachel Carson.
https://www.youtube.com/watch?v=-OyS6VQ4EGY

### Natural Connections

"This outstanding program makes effective use of interviews with well-spoken scientists, beautiful photography, top quality graphics, and original music to underline the importance of maintaining biodiversity, if we as a species want to survive and thrive on our home planet."

www.bullfrogfilms.com/catalog/natcon.html

### Sustainable Development and the Ecosystem Approach

"Two short but informative presentations: "Sustainable Development" (7 min. 42 sec.) lays out the concept of sustainable development in clear terms. It shows how sustainable development is more than just jargon, and relates the concept to the work of the World Resources Institute and Environment Canada's State of the Environment Reporting organization. "Earth's Harmony" (9 min. 38 sec.) shows how humans have become great agents of environmental change and have influenced ecosystems from the global to the microscopic. It urges us to modify our theories and to begin thinking in terms of ecosystems. Then we begin to see ourselves as part of Earth's ecology... not apart from it."

http://www.landstewardship.org/resources/resource/378/

### Race to Save the Planet

"Race To Save The Planet is a 1990 TV series that aims to educate viewers on how to protect the environment. Its 10 episodes discuss environmental issues like the effect of the Industrial Revolution to the environment, extent of environmental destruction around the world, biodiversity loss, waste management, energy conservation, use of renewable resources, recycling, and improvement of existing environmental policies. The series was shown on Channel 2 Boston (WGBH) and featured Roy Scheider as narrator and Meryl Streep as hostess."

https://www.youtube.com/watch?v=6t7fH6o-Tq8

## Other Suggestions

### Water Footprint Calculator

This calculator helps you estimate your personal water usage.

http://www.watercalculator.org/

### Footprint Calculator

This calculator, provided by the Global Footprint Network, helps students determine how many planets are required to sustain their lifestyle.

http://www.footprintnetwork.org/resources/footprint-calculator/

**Canon Envirothon**

An annual competition held for high school students throughout North America. Designed as a way to teach teens about environmental education, the best teams from over 47 states compete in five subjects: Wildlife, Forestry, Soil, Aquatics, and Current Environmental Issues. Winners receive college scholarships.
www.envirothon.org/

**The International Education and Resource Network (IEARN)**

IEARN enables young people to undertake projects designed to make a meaningful contribution to the health and welfare of the planet and its people.
www.iearn.org/

**Earth Force**

Young people changing their communities and caring for our environment now, while developing life-long habits of active citizenship and environmental stewardship.
www.earthforce.org/

**The Sierra Youth Coalition**

An organization run by youth for youth, serving as the youth arm of the Sierra Club of Canada. Their mission is to empower young people to become active community leaders who contribute to making Canada a better society.
www.syc-cjs.org/

**An Inconvenient Sequel: Truth to Power**

"A decade after *An Inconvenient Truth* brought climate change into the heart of popular culture comes the follow-up that shows just how close we are to a real energy revolution."
www.imdb.com/title/tt6322922/?ref_=nv_sr_1

**Food Choices**

"This documentary follows filmmaker Michal Siewierski as he explores the impact that food choice has on people's health, the health of our planet and on the lives of other species."
www.imdb.com/title/tt6039284/?ref_=tt_rec_tti

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*Gender*

## Introduction

Gender is an element of life that exists for all of us, every day, shaping our lives dramatically, often in ways that are largely invisible to us. The roles of men and women in western society have changed rapidly over the last 150 years. Organized social movements for women's rights began with the suffragette and union movements and grew into the feminist movements of the 1960s. While many gains were made, women in Canada and all over the western world still do not have full equality with men in many areas of society. Gains made in Canada have gone largely to the wealthiest women, leaving many poor, First Nations, and immigrant women struggling, even though many insist that we have gender parity and there is no longer any need for a women's movement. Women in Canada still do twice as much unpaid domestic work as men and on average make 20 percent less money than men for the same work. Women in Canada experience much higher rates of sexual assault than men, as well as stalking, serious spousal assault, and spousal homicide. In Canada, women only hold 11 percent of the seats on corporate boards and 26 percent of the seats in the federal Parliament. Clearly, there is still much work to be done.

Women all over the world continue to struggle for their rights and their survival within a patriarchal social and economic structure. Women the world over are subjected to different laws and customs and have less access than men to all forms of services, including health, education, work, wages, and even food and water. While in the West women have won many gains in basic equality, many women in other countries are still struggling to gain even the most basic freedoms. Most economies in the world rely on an enormous amount of unpaid labour, done largely by women and children. Without fair pay for their work, most women are still entirely dependent on husbands or fathers to meet their day-to-day needs. This means that they cannot leave abusive situations and that, if anything happens to those men, women are left without any means of supporting themselves or their children.
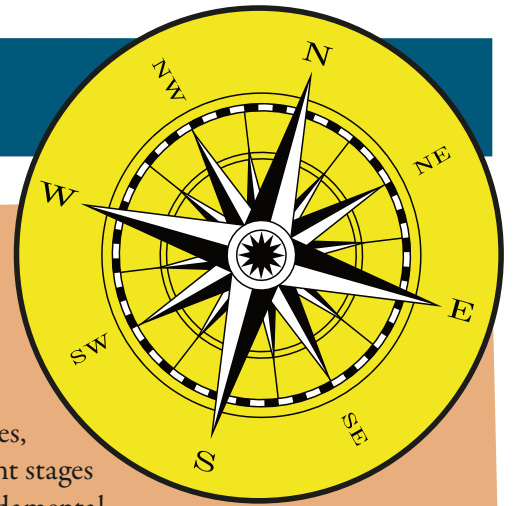
One of the most important issues for women all over the world is access to proper reproductive health care. Women's options are very limited and their health is at risk when they cannot control the number of children they have, as this often causes them to have more children than the family can care for. Reproductive health is a fundamental issue in equality, because women bear the brunt of child bearing and rearing. Without the ability to control the size and timing of their families, many other development goals for women (e.g., education, paid work, political representation) fall by the wayside. And without the money to support all of their children, many families end up prioritizing the well-being of boys over girls.

Gender roles also affect us in very personal ways. By ascribing a specific set of clothes, interests, strengths, weaknesses, behaviours, etc., to each gender, we limit what each person can do and be. By the time most of us are old enough to view advertising critically, we have often already seen enough to have absorbed an enormous amount of stereotypes and the insecurities and preconceptions that go along with them. The trend towards the hyper-sexualization of girls is a relatively new and growing market phenomenon that will very much affect the way today's children view themselves and each other as adults. Current ascribed gender roles are different

than they were for our parents and will be different again in the next generation, just as they will change the world over. These are not unarguable laws of nature, but rather a social construct that can be challenged and changed for the better. It is important to understand that these roles are limiting for boys and men as well as for girls and women. Many boys feel enormous pressure to give up creative pursuits or disengage from emotional relationships in order to maintain their gender identity and heterosexual status (regardless of their sexual orientation).

Finally, people who are transgender, gay, or lesbian are the farthest outside our culturally accepted ideas of what it is to be a man or women. They incur the most wrath and, in the West, are among the last groups of people to have their rights acknowledged and enforced. Canada only decriminalized homosexuality in 1969 and legalized same-sex marriage in 2005. Today, the LGBTQ community still experiences higher rates of violence, depression, suicide, and poverty than the majority of Canadians. Many have trouble gaining access to rights that most Canadians take for granted, including being free from harassment, having access to their children, and having the same spousal rights (e.g., benefits, power of attorney, etc). While many of these rights are protected, they continue to be very difficult to enforce.

Gender is one of the fundamentally defining features for each of us as human beings; it affects virtually every aspect of our daily lives. It is no wonder that it is also a hugely complex personal, social, economic, and political issue and often a controversial one. However, it is an issue that deserves to be examined and challenged, both on a global scale but also at home in Canada and in each of our own personal lives.

## Exploring the Issues

To have a good grasp of the question and issues surrounding gender, it's important for students to understand that the foundational issues are the same for people everywhere. Countries, cultures, and even different groups within Canada are at different stages in terms of equality; but while there are local variations, the fundamental issues of equality are the same. Students should be able to see how the same issues play out at a personal, regional, national, and global scale. They should also think about the ways people other than women are affected by these same issues—specifically members of the Lesbian, gay, bisexual, transgender (or two spirit), and queer (LGBTQ) community.
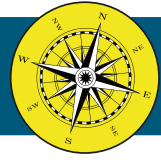
### Education

Education is a fundamental human right that every child is entitled to. Equal education for boys and girls is an essential ingredient to an equal society. On an individual level, it allows girls to have access to and make better choices in all areas of their lives, with outcomes of better jobs, better wages, better health, etc., for themselves and their children. For society as a whole, it increases productivity and enhances our collective "human capital." Higher education means smaller families and healthier children, less poverty, and less disease. Overall education has positive ripple effects in all areas of women's lives. Education, especially for girls, has profound social and economic benefits for society as a whole.

In developing nations, getting girls in school and keeping them there is the challenge. Some of the issues include providing safe transportation to and from school, providing separate washroom facilities for girls and boys, avoiding gender stereotyping in the classroom, and providing free public education so parents aren't forced to choose which child to educate.

### Reproductive Rights

The issue of reproductive rights profoundly affects the lives of men, women, and children, but because this issue affects women most directly, these rights paramount to their ability to function as equals in a society. If women cannot control the number and timing of their children, it becomes exceedingly difficult for them to reach any of the other goals (i.e., education, political representation, employment, etc.). Smaller families mean more choices for women, more access to paid work, less domestic work, better health for mother and children, and higher education of mothers and children. This issue is equally pressing for women all over the world.

There are three major challenges facing women all over the world in controlling family size. The first is access to free birth control. Even in the developed world, this can be hard to come by, which means many women do not have access to birth control because they can't afford it. An estimated 150 million women worldwide cannot get the birth control they desire. The second issue is social or cultural taboos against birth control, or the idea that it is not up to individual women to choose

when to have children. The decision is often based on religious beliefs or the idea that it is up to men, extended family, etc. The third issue is access to safe options for terminating unwanted pregnancies. Maternal mortality remains the leading cause of death for women of child-bearing age—an estimated 500,000 women die each year from pregnancy-related causes, with 78,000 deaths resulting from unsafe abortion.
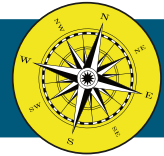
## Access to Work and Equal Pay

Women all over the world work hard, doing approximately 66 percent of the world's work, and yet they receive only 10 percent of the world's income. In order to function equally in a society, women need access to work, but also work that pays well. Many women throughout the world work outside the home, and yet the amount of income they make is wildly different from the amount men make. There are several reasons for this. First, women make less than men for doing the same work—in Canada, 20 percent less on average. Secondly, those industries that are predominantly female (teaching, nursing, service, child care, etc.) are paid less on average than industries that are predominantly male. Third, women are much less likely to attain higher positions that pay better. This is called the "glass ceiling." Around the world, women hold 20 percent of senior management positions. In Canada, they hold 28 percent. The country with the most women in senior management is Thailand at 45 percent. Finally, women around the world still do the vast majority of the child care and domestic work. This means that even when they work for pay, their work is much more likely to be marginal, part-time, contract, under the table, etc., with the result that women do not gain access to the sort of security that men do in the form of job protection, pensions, promotions, health plans, etc.

A lack of access to reliable, accessible, high-quality child care is a huge barrier to women's ability to participate equally in the workforce the world over. In Canada, it is estimated that there is one daycare spot for every two children who need it, and it is still relatively expensive outside of Quebec. Many countries have no daycare system in place at all, meaning women have to rely on friends and family if they are working outside the home. The unequal distribution of domestic work, called the "double shift," is another problem for women. It means that women who work outside of the house still come home and do the vast majority of the work inside the house as well. All that work that is done at home, which certainly contributes to society and the economy, is done for free. Paid market value wages for a stay-at-home parent would equal approximately $117,867 a year.

## Political Representation

Women work, women pay taxes, and women vote, and yet all too often they are not represented in political office. In order to be equal in society, it is necessary for everyone to have representation in the systems that govern us. This is true in every society and every system of government. Equality means women need to be represented at every level of governance. Around the world, women represent 18 percent of parliamentary seats; in Canada's federal Parliament, that number is 26 percent. The world leaders are Rwanda with 56.3 percent and Andorra with 53.6 percent. There are only 13 women in the

highest positions out of 189 governments. The LGBTQ community is even more poorly represented in politics. While demographic data is hard to come by, approximately 4 percent of Americans identify as LGBTQ openly, while the number of openly LGBTQ people in politics is much lower.

There are a lot of things that keep women from representation in the political sphere, and many are economic. Politics is expensive and women have less money. Having less education means women are prevented from running for office down the road. While very few countries do still legally prevent women from voting, women are still often underrepresented as voters due to social norms and attitudes. This means that women who do run may lose elections due to a lack of women voters. The countries that have been most successful at overcoming these barriers have been those that have enacted representational quotas. This means that a certain number of positions in each body of government are reserved for women.

### Freedom from Gender-Based Violence

While it may seem self-evident that freedom from violence (and the threat of violence) is necessary for full participation in society, it is important to recognize that gender-based violence is still a problem for women everywhere in the world. There is no country, race, age, or social class in which women are free from gender-based violence, and it limits our ability to function fully in society. Fear of harassment and assault—on the job, at school, in our homes, and in social spaces—limits women's abilities to move and work freely in the world.

There are both social and economic issues that affect how gender-based violence is viewed and dealt with. Without the means to support themselves and their children, women are often unable to leave situations (at home, work, school) in which they are suffering abuse. In many countries, women are still legally considered the property of their husbands or fathers, and therefore any violence they experience by these men is not against the law. Programs that assist women and their children are often underfunded and many women are turned away. Our society's focus on the prevention of violence is geared towards women, encouraging girls and women to protect themselves rather than focusing on educating boys and men to prevent violence in the first place. Finally, many women do not report gender-based violence. In Canada, only 22 percent of domestic assaults and 10 percent of sexual assaults are ever reported.

### Access to Services

While the number and type of services vary widely by country and even region, women's access to services is generally worse than men's. Services can include such things as health care, education, legal protection, food/clean water, and housing. In order to have equality in society, everyone must be entitled to whatever benefits that particular society has to offer. If women don't hold equal status to men under the law with such basic rights as owning property, custody of children, protection from assault, divorce rights, etc., then they will never attain equality. If they have to spend all their time and resources meeting the basic needs of food, shelter, and clothing for themselves and their children, then they will never be able to be fully productive members of society. What resources each society has are different; however, distributing these resources unevenly furthers the inequality and is bad for everyone in the long run.
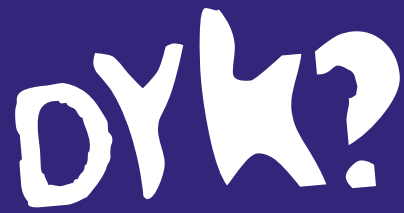
## Essential Questions

Inquiry questions related to gender issues may include the following:

Students should be thinking about gender as a universal issue, including how it affects them personally as well as how it affects other members of their community and nation and people around the world. Students should avoid the "us versus them" mentality by not only looking at how gender affects women but also by understanding the costs of an unequal society to everyone. Looking at how gender intersects with race, class, and sexual orientation will also help students understand who has made the largest gains and who is being left behind. It is important that students see the areas of inequality in Canada and their own lives, rather than focusing strictly on the status of women in other countries. All of the issues fundamental to gender can be tied together through a personal, local, national, and global narrative. Therefore, students should compare and contrast how questions apply in each area.

- What is feminism? What is sexism?
- What are homophobia and heterosexism?
- What are gender roles? How do they affect me?
- Do gender roles affect others differently (e.g., opposite sex, LGBTQ, people of colour, poor people)?
- What does equality mean? Does equal mean the same thing?
- How have gender roles changed? How have they stayed the same?
- Who challenged and made changes to society?
- What changes had the largest impact? Why?
- Do all women benefit equally from improvements?
- What are the main issues facing women today? In the past?
- What is the timeline of women's rights?
- What are the main challenges to family planning?
- What steps could be taken to involve more women in the political process?
- How does society deal with gender-based violence?
- Why is it sometimes hard to enforce laws protecting equality?
- What social or legal steps would equalize women's participation in work?

**DYK?**

## Did You Know?

"While women account for more than half of university graduates in several OECD countries, they receive only 30 percent of tertiary degrees granted in science and engineering fields, and women account for only 25 percent to 35 percent of researchers in most OECD countries." (OECD, 2006)

"Women perform 66 percent of the world's work, but receive only 11 percent of the world's income, and own only 1 percent of the world's land." (UNICEF, 2007)

"Each day, men and women work about the same number of hours, but women do more unpaid work (housework, child care, meal preparation, eldercare, etc.) Women do about 4.2 hours a day doing unpaid work, while men do about 2.2 hours." (Abma, 2011)

For every 100 Canadian children, the number of licensed child care spaces available is 20. (CRRU, 2010)

"On average, 9 percent of people living in Canada are poor. However, some groups are much more likely to be poor than others:

- Aboriginal women (First Nations, Métis, Inuit)—36 percent
- Visible minority women—35 percent
- Women with disabilities—26 percent
- Single parent mothers—21 percent (7 percent of single parent fathers are poor )
- Single senior women—14 percent" (Canadian Women's Foundation, 2013)

"Nearly two-thirds of the world's illiterate adults are women." (United Nations, 2015)

"Over 110 million of the world's children, two-thirds of them girls, are not in school." (Unesco, n.d.)

"About 75 percent of the refugees and internally displaced in the world are women who have lost their families and their homes." (Musa and Domatob, 2012, p. 212)

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"Pregnancy-related complications are a leading cause of death among girls aged 15–19 years in developing countries; unsafe abortion— provided by unskilled persons in unhygienic conditions— contributes substantially to these deaths." (Dennis, 2007)

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"Around the world, at least one woman in every three has been beaten, coerced into sex, or otherwise abused in her lifetime." (Amnesty International, 2016)

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"Girls are far more likely than boys to suffer sexual violence (8.7 percent boys; 25.3 percent girls globally)." (Hobbs, 2013, p. 458)

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"On average, every six days a woman in Canada is killed by her intimate partner." (Beattie and Cotter, 2010, p. 14)

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"On any given day in Canada, more than 3,000 women (along with their 2,500 children) are living in an emergency shelter to escape domestic violence." (Canadian Women's Foundation, 2013)

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"About 80 percent of sex trafficking victims in Canada are women and girls." (Canadian Women's Foundation, 2013)

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"As of 2010, there were 582 known cases of missing or murdered Aboriginal women in Canada. Both Amnesty International and the United Nations have called upon the Canadian government to take action on this issue, without success." (Canadian Women's Foundation, 2013)

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"Overall, the rate of self-reported violent victimization among Aboriginal women was almost three times higher than the rate of violent victimization reported by non-Aboriginal women." (Brennan, 2011, p. 5)

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"Women of aboriginal descent now make up more than 35 per cent of the female prison population."
　　– Howard Sapers, Correctional Investigator of Canada, 2015 (CBC News, May 27, 2015)

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"Gays, lesbians and bisexuals are enjoying new legal protections, but are still experiencing discrimination at higher rates than heterosexuals." (Statistics Canada, 2011)

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"A package of reforms to the Criminal Code was enacted in 1983, and for the first time since confederation marital rape was categorized as a criminal offence." (Koshan, 2010, p. 3)

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"Half of all women in Canada have experienced at least one incident of physical or sexual violence since the age of 16." (Canadian Women's Foundation, 2015)

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## Thought-Provoking Quotations

"Every single Goal is directly related to women's rights, and societies where women are not afforded equal rights as men can never achieve development in a sustainable manner."
    – United Nations Millennium Project, 2002

"I myself have never been able to find out precisely what feminism is: I only know that people call me a feminist whenever I express sentiments that differentiate me from a doormat or a prostitute."
    – Rebecca West

"The thing women have yet to learn is nobody gives you power. You just take it."
    – Roseanne Barr (Feldt)

"Men are taught to apologize for their weaknesses, women for their strengths."
    – Lois Wyse (Young)

"I am working for the time when unqualified blacks, browns, and women join the unqualified men in running our government."
    – Sissy Farenthold (Partnow)

"I've yet to be on a campus where most women weren't worrying about some aspect of combining marriage, children, and a career. I've yet to find one where many men were worrying about the same thing."
    – Gloria Steinem

"Gender equality is more than a goal in itself. It is a precondition for meeting the challenge of reducing poverty, promoting sustainable development and building good governance."
    – Kofi Annan (Misra)

"Sexual, racial, gender violence and other forms of discrimination and iolence ina culture cannot be eliminated without changing culture."
    – Charlotte Bunch (Manvell)

"Justice demands integrity. It's to have a moral universe—not only know what is right or wrong but to put things in perspective, weigh things. Justice is different from violence and retribution; it requires complex accounting."
    – bell hooks (Parker Hall)

"Men are allowed to have passion and commitment for their work … a woman is allowed that feeling for a man, but not her work."
    – Barbra Streisand

"Whatever women do they must do twice as well as men to be thought half as good. Luckily, this is not difficult."
    – Charlotte Whitton (Finan et al.)

"I don't understand all the nuances of the women's movement. But I do understand that there are feminists who want to challenge the dominant paradigm, not only of patriarchy, but of where the original wealth came from and the relationship of that wealth to other peoples and the earth. That is the only way that that I think you can really get to the depth of the problem."
    – Winona LaDuke

"The emotional, sexual, and psychological stereotyping of females begins when the doctor says: 'It's a girl.'"
    – Shirley Chisholm

"The world has never yet seen a truly great and virtuous nation because in the degradation of woman the very fountains of life are poisoned at their source."
    – Lucretia Mott

"I find it strange that practicing law in a comfortable well-heated office is considered too demanding an occupation for women, yet labouring from dawn's first light in crowded, drafty, ill-lit sweatshops is not."
    – Shirley Tallman

"A nation is not defeated until the hearts of its women are on the ground. Then it is done, no matter how brave its warriors or how strong its weapons."
    – Cheyenne proverb

"Why is it that, as a culture, we are more comfortable seeing two men holding guns than holding hands?"
    – Ernest Gaines (Rosenthal)

"No woman can call herself free who does not own and control her body. No woman can call herself free until she can choose consciously whether she will or will not be a mother."
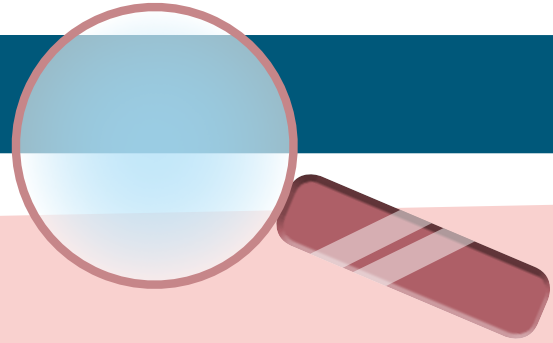    – Margaret Sanger

## Making a Difference

| Name | How they make a difference |
|---|---|
| **1844, United States** | Sarah Bagley was one of the founders of the Lowell Female Labor Reform Association, which was one of the first organizations of working women in the U.S. It was formed to press for better working conditions for female workers in the Lowell Mills in Massachusetts. |
| **1860s, United States** | Susan B. Anthony and Elizabeth Cady Stanton were key spokespersons for the 19th-century women's suffrage movement. They helped to found the American Equal Rights Association in 1866, and in 1868, with Stanton as editor, became publishers of *Revolution*. Stanton and Anthony founded the National Woman Suffrage Association. American women won the vote in 1920. |
| **1867, United Kingdom** | Lydia Becker formed the National Society for Women's Suffrage, which was the first national group in the United Kingdom to campaign for women's right to vote, helping lay the foundations of the women's suffrage movement. Universal suffrage for all adults over 21 years of age was not achieved in the U.K. until 1928. |
| **1912, United States** | Elizabeth Gurley Flynn and the Industrial Workers of the World helped to organize the Lawrence Textile Strike, marking a turning point for the organization of unskilled women and immigrants into the labour movement. The strike won concessions for workers in the mill and made a profound impression on the public and the rest of the labour movement by dramatizing the living and working conditions of unorganized, foreign-born workers. Flynn went on to be a founding member of the American Civil Liberties Union and to be the first woman to hold the position of National Chairman of the Communist Party. She was also involved in the women's suffrage movement and the women's rights movement and was a strong supporter of birth control. |
| **1916, Canada** | Nellie McClung and the Famous Five created a successful petition to clarify the term "Persons" in Section 24 of the British North America Act of 1867, which was the section that was used to prevent women from being allowed to seek political office. Manitoba was the first province to grant women the right to vote in 1916 and the right was granted federally in 1919 (except in Quebec, which did not grant women full voting rights until 1940). It should be noted that Asian Canadians won the right to vote in 1948, the Dukkhabors in 1955, and Indigenous people in 1960. Therefore, in this context the term *women* means women of western European descent. |
| **1921, Canada** | Agnes Macphail was involved in numerous groups and various social issues, including the women's movement, penal reform, rural issues, and health. She was the first woman Member of Parliament (MP) in Canada. Macphail won a seat in the 1921 federal election and was re-elected in the 1925, 1926, and 1930 federal elections. |

# Gender

| Name | How they make a difference |
|---|---|
| **1942, United States** | Margaret Sanger, a nurse from New York, set up the first birth control clinic in the United States and, the following year, was sent to the workhouse for "creating a public nuisance." Her many arrests and prosecutions, and the resulting outcries, helped lead to changes in laws, giving doctors the right to give birth control advice (and, later, birth control devices) to patients. In 1942, after several organizational mergers and name changes, Planned Parenthood Federation came into being. In 1965, the U.S. Supreme Court removed one of the last serious barriers to family planning when it struck down state laws prohibiting the use of contraceptives by married couples. |
| **1963, United States** | Betty Friedan published *The Feminine Mystique*, objecting to the mainstream media image of women, stating that placing women at home limited their possibilities and was a waste of talent and potential. She wrote that the image of the perfect nuclear family that was commonly depicted and strongly marketed at the time did not reflect happiness and was rather degrading for women. This book is widely credited with having begun second-wave feminism. |
| **1966, United States** | The National Organization for Women is the largest feminist organization in the United States. It was founded in 1966 and has a membership of 500,000 contributing members. The organization consists of 550 chapters in all 50 U.S. states and the District of Columbia. |
| **1971, Canada** | The National Action Committee on the Status of Women (NAC) is a Canadian feminist activist organization. NAC was founded in 1971 as a pressure group to lobby for the implementation of the 167 recommendations made in the Royal Commission on the Status of Women in Canada's 1970 report on matters such as day care, birth control, maternity leave, family law, education, and pensions. NAC eventually grew into the largest national feminist organization with a total of 700 groups claiming affiliation. Its mandate grew beyond the implementation of the Royal Commission's recommendations to include issues such as poverty, racism, same-sex rights, and violence against women. |
| **1972, United States** | Gloria Steinem co-founded *Ms. Magazine*. An American feminist, journalist, and social and political activist who became nationally recognized as a leader of, and media spokeswoman for, the women's liberation movement in the late 1960s and 1970s, she went on to co-found the Women's Media Center, an organization that works to amplify the voices of women in the media through advocacy, media and leadership training, and the creation of original content. |
| **1987, India** | Vandana Shiva founded the Research Foundation for Science, Technology and Ecology. She is a leader and board member of the International Forum on Globalization. She plays a major role in the global ecofeminist movement. Shiva, currently based in Delhi, has authored more than 20 books and over 500 papers in leading scientific and technical journals, and is a prominent figure of the global solidarity movement known as the alter-globalization movement. |

| Name | How they make a difference |
|---|---|
| **1988, United States** | S. Bear Bergman was one of the founders of the first high school Gay Straight Alliances. Bergman is a transgender author, poet, playwright, and theatre artist who identifies as neither male nor female. Bergman has authored several books, including *Butch is a Noun* and, co-edited with Kate Bornstein. |
| **2001, Canada** | Judy Rebick, co-founder and publisher of rabble.ca, first gained national prominence as president of the National Action Committee on the Status of Women from 1990 to 1993. She was the co-host of a prime time debate show called *Face Off* on CBC Newsworld from 1994–1998 and then a women's discussion show *Straight from the Hip* until 2000. She was a regular commentator on CBC TV's *Sunday Report* and CBC Radio. She was, during that time, also a columnist with *Elm Street* magazine, *London Free Press*, and on CBC Online. In 2001, she helped launch rabble.ca. |
| **2004, United States** | Jessica Valenti founded the popular blog *feministing* and is the author or co-author of four books on women's issues, including *Full Frontal Feminism* (2007) and *He's a Stud, She's a Slut* (2008). Her work has appeared in *Ms. Magazine*, *The Guardian*, *The Nation*, *The Washington Post*, TPMCafe, and Alternet. Valenti is a pioneer in bringing the feminist movement online and into the 21st century. |
| **2006, India** | Sampat Pal Devi founded the Gulabi (Pink) Gang as a response to widespread domestic abuse and other violence against women. Gulabis visit abusive husbands and beat them up with *laathis* (bamboo sticks) unless they stop abusing their wives. In 2008, they stormed an electricity office in Banda district and forced officials to turn back the power they had cut in order to extract bribes. They have also stopped child marriages and protested against dowries and female illiteracy. The group, which the Indian media portray positively, was reported to have 20,000 members as of 2008, as well as a chapter in Paris, France. |
| **2007, Canada** | Jessica Yee founded the Native Youth Sexual Health Network, a North America–wide organization working on issues of healthy sexuality, cultural competency, youth empowerment, reproductive justice, and sex positivity by and for Indigenous youth. |

## Glossary

**Abortion on demand:** An abortion performed on a woman solely at her own request (she does not need the approval of anyone else, such as a doctor, a judge, a parent, etc.).

**Division of labour:** "An overall societal pattern where women are allotted one set of gender roles and men are allotted another set." (USAID)

**Double burden:** "A term used to describe the situation of women who perform paid work outside the domestic sphere and perform homemaking and child care work inside the home." (Rathnamvenpro)

**Glass ceiling:** "The unseen, yet unbreachable, barrier that keeps minorities and women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements." (FGCC)

**Feminism:** Feminism is a collection of movements aimed at defining, establishing, and defending equal political, economic, and social rights and equal opportunities for women. Its concepts overlap with those of women's rights.

**Gender:** "The economic, political, and cultural attributes and opportunities associated with being male or female. The social definitions of what it means to be male or female vary among cultures and change over time." (USAID)

**Gender equity:** "Gender equity means fairness of treatment for women and men, according to their respective needs. This may include equal treatment or treatment that is different but considered equivalent in terms of rights, benefits, obligations, and opportunities (e.g., equal treatment before the law; equal access to social provisions and education; equal pay for work of the same value)." (USAID)

**Gender roles:** "Communities and societies create social norms of behaviour, values, and attitudes that are deemed appropriate for men and women and the relations between them. These roles are assigned by social criteria rather than biological criteria." (USAID)

**Gender role stereotyping:** "The portrayal, in media or books or conversations, of socially assigned gender roles as 'normal' and 'natural.'" (USAID)

**Heterosexism:** "A system of attitudes, bias, and discrimination in favour of opposite-sex sexuality and relationships. It can include the presumption that everyone is heterosexual or that opposite-sex attractions and relationships are the only norm and, therefore, superior." (Wikipedia)

**Homophobia:** "Homophobia is a term used to refer to a range of negative attitudes and feelings towards lesbians and gays and, in some cases, bisexual and transgender people. It refers to hatred, prejudice, contempt, and irrational fear of people in the LGBTQ community.Homophobia is observable in critical and hostile behaviour, such as discrimination and violence on the basis of a perceived homosexual or, in some cases, any non-heterosexual orientation." (Wikipedia)

**LGBTQ:** An abbreviation that collectively refers to "lesbian, gay, bisexual, and transgender (or two spirit)" people. A popular variant adds the letter Q for those who identify as queer and are questioning their sexual identity.

**Patriarchy:** A social system in which the role of the male is the primary authority figure and in which fathers hold authority over women, children, and property. It reinforces the institutions of male rule and privilege and is dependent on female subordination.
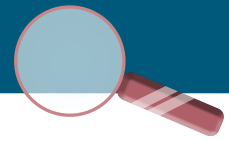
**Prejudice:** "A prejudice is a prejudgment, an assumption made about someone or something before having adequate knowledge to do so with guaranteed accuracy." (Bekerian et al.)

**Quotas:** "A fixed minimum or maximum number of a particular group of people that are allowed to do something, such as the number of immigrants allowed to enter a country, the number of specific types of workers employed to undertake a job, or the number of a specific demographic of students accepted into an academic program." (OUP)

**Reproductive health:** When people "have a responsible, satisfying, and safe sex life with the ability to reproduce and the freedom to decide if, when, and how often they do so. Reproductive health is measured by the right of men and women to be informed of, choose, and to have access to safe, effective, affordable, and acceptable methods of birth control. It also includes the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and will provide couples with the best chance of having a healthy infant." (UN)

**Sex:** "Sex refers to the biological characteristics that define humans as female or male." (WHO)

**Sexual orientation:** A pattern of emotional, romantic, and/or sexual attractions to males, females, both, or neither. These attractions can be heterosexuality, homosexuality, bisexuality, or asexuality.

# Gender

**Sexism:** Sexism, also known as gender discrimination or sex discrimination, is the application of the belief or attitude that there are characteristics implicit to one's gender that indirectly affect one's abilities in unrelated areas. It is a form of discrimination or devaluation based on a person's sex, with such attitudes being based on beliefs in traditional stereotypes of gender roles.

**Stereotype:** A popular belief about specific social groups or types of individuals, stereotypes are standardized and simplified conceptions of groups based on some prior assumptions.

**Suffragette:** "A woman seeking the right to vote through organized protest." (OUP)

**Transgender:** A general term applied to a variety of individuals, behaviours, and groups involving tendencies to vary from culturally conventional gender roles.

**Transsexual (trans):** "An individual's identification with a gender inconsistent or not culturally associated with their biological sex." (Bremner)

**Union:** An organization of workers that have banded together, often for the purpose of getting better working conditions or pay.

## Resources

### Books

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Bender, Karen E., and Nina de Gramont, Editors. *Choice: True Stories of Birth, Contraception, Infertility, Adoption, Single Parenthood, & Abortion*. San Francisco, CA: MacAdam/Cage, 2007.

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DeKeseredy, Walter S. *Violence against Women: Myths, Facts, Controversies*. Toronto, ON: University of Toronto Press, 2011.

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hooks, bell. *Feminism Is for Everybody: Passionate Politics*. Brooklyn, NY: South End Press, 2000.

INCITE! Women of Color Against Violence (Editor). *The Color of Violence: The Incite! Anthology*. Brooklyn, NY: South End Press, 2006.

Kindlon, Dan. *Raising Cain: Protecting the Emotional Life of Boys*. New York, NY: Ballantine Books, 2000.

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Norsigian, Judy, and The Boston Women's Health Book Collective. *Our Bodies, Ourselves: A New Edition for a New Era*, 4th edition. New York, NY: Touchstone, 2005.

Orenstein, Peggy. *Cinderella Ate My Daughter: Dispatches from the Front Lines of the New Girlie-Girl Culture*. New York, NY: Harper, 2011.

Paxton, Pamela M., and Dr. Melanie Hughes. *Women, Politics, and Power: A Global Perspective*. Newbury Park, CA: Pine Forge Press, 2007.

Smith, Crystal. *The Achilles Effect: What Pop Culture is Teaching Young Boys about Masculinity*. Bloomington, IN: iUniverse.com, 2011.

Terry, Geraldine (Editor). *Gender-Based Violence* (Oxfam Working in Gender and Development Series). Oxford, UK: Oxfam Publishing, 2007.

Tinker, Irene. *Developing Power: How Women Transformed International Development*. New York, NY: The Feminist Press at CUNY, 2004.

Thomas, Tracy. *Feminist Legal History: Essays on Women and Law*. New York, NY: NYU Press, 2011.

Valenti , Jessica. *Full Frontal Feminism: A Young Woman's Guide to Why Feminism Matters*. Berkeley, CA: Seal Press, 2007.

Whitmire, Richard. *Why Boys Fail: Saving Our Sons from an Educational System that's Leaving Them Behind*. New York, NY: AMACOM, 2010.

Wolf, Naomi. *The Beauty Myth: How Images of Beauty Are Used Against Women*. New York, NY: Harper Perennial, 2002.

## Websites

**Feministing**

"Feministing is an online community run by and for young feminists. Our diverse collective of writers cover a broad range of intersectional feminist issues—from campus sexual violence to transgender rights to reproductive justice. We serve as a gateway to the feminist movement for young people, giving our readers ways to take concrete action, as well as connecting them with feminist organizations and grassroots activists."
http://feministing.com

**Pink Stinks**

"*Pinkstinks* is a campaign that targets the products, media, and marketing that prescribe heavily stereotyped and limiting roles to young girls. We believe that all children—girls and boys—are affected by the 'pinkification' of girlhood. Our aim is to challenge and reverse this growing trend. We also promote media literacy, self-esteem, positive body image, and female role models for kids."
www.pinkstinks.co.uk

**UN Women**

"In July 2010, the United Nations General Assembly created *UN Women*, the United Nations Entity for Gender Equality and the Empowerment of Women. In doing so, UN Member States took an historic step in accelerating the Organization's goals on gender equality and the empowerment of women. The creation of UN Women came about as part of the UN reform agenda, bringing together resources and mandates for greater impact."

www.unwomen.org

**The USA's National Organization for Women (NOW)**

NOW "focuses on a broad range of women's rights issues, including economic justice, pay equity, racial discrimination, women's health and body image, women with disabilities, reproductive rights and justice, family law, marriage and family formation rights of same-sex couples, representation of women in the media, and global feminist issues."

www.now.org

**Egale**

"Founded in 1995, Egale Canada Human Rights Trust is Canada's only national charity promoting lesbian, gay, bisexual, and trans (LGBT) human rights through research, education, and community engagement. Egale's vision is a Canada, and ultimately a world, without homophobia, biphobia, transphobia, and all other forms of oppression so that every person can achieve their full potential, free from hatred and bias."

www.egale.ca

**Action Canada for Sexual Health & Rights**

Founded in 2014, this amalgamation of Canadians for Choice (CFC), the Canadian Federation for Sexual Health (CFSH), and Action Canada for Population and Development (ACPD) is the Canadian member of the International Planned Parenthood Federation.

www.cfsh.ca

**Wikipedia: Timeline of Women's Rights**

"This timeline signifies the major events in the legal law reforms in women's rights and issues of gender equality."

http://en.wikipedia.org/wiki/Timeline_of_women's_rights_(other_than_voting)

### UNESCO: Gender Equality in Education

"Gender-based discrimination in education is both a cause and a consequence of deep-rooted disparities in society. Poverty, geographical isolation, ethnic background, disability, and traditional attitudes about their status and role all undermine the ability of women and girls to exercise their rights. Harmful practices such as early marriage and pregnancy, gender-based violence, and discriminatory education laws, policies, contents, and practices still prevent millions of girls from enrolling, completing, and benefitting from education.

Gender must therefore be integrated at all levels of education, from early childhood to higher education, in formal and non-formal settings and from planning infrastructure to training teachers."

www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-sustainable-development/gender-equality/

### Native Women's Association of Canada

"The Native Women's Association of Canada (NWAC) works to advance the well-being of Aboriginal women and girls, as well as their families and communities through activism, policy analysis, and advocacy."

www.nwac.ca

### Media Education Foundation

"The Media Education Foundation produces and distributes documentary films and other educational resources to inspire critical thinking about the social, political, and cultural impact of American mass media."

www.mediaed.org/

## Multimedia
## Must-Have Videos

### Documentary: The F Word: Who Wants to be a Feminist? (2011)

"According to the UN, women make up 53% of the world's population, but they own only 1% of the world's wealth. Women hold up half the sky, but in Canada they are only holding 11% of the seats on corporate boards and 21% of the seats in Parliament. In the workplace, women hold half the jobs, but are taking home 20% less pay then men. So what happened? Wasn't Feminism supposed to fix this?

The F Word attempts to answer these questions by examining the trajectory of the First, Second, and Third Waves of Feminism and their effects in the 20th century, and then investigating what Feminism—the word and the movement—means today and might mean tomorrow."

www.cbc.ca/doczone/episodes/the-f-word

**Documentary: Killing Us Softly IV: Advertising's Image of Women (2010)**

> This American documentary, based on a lecture by Jean Kilbourne, was first released in 1979 and has since been revised four times. It focuses on gender stereotypes and the objectification of women in advertising, as well as the subsequent effects on women's self-image.
>
> https://en.wikipedia.org/wiki/Killing_Us_Softly

## Other Resources

**Documentary: My Feminism (1997)**

> "My Feminism is a critically important look at second wave feminism in the 1990s, a time rife with anti-feminist backlash. Powerful interviews with feminist leaders including bell hooks, Gloria Steinem, and Urvsahi Vaid are intercut with documentary sequences to engagingly explore the past and present and future status of the women's movement."
>
> www.wmm.com/filmcatalog/pages/c412.shtml

**Documentary: Hip Hop: Beyond Beats & Rhymes (2006)**

> "Hip-hop is a man's game, but does it have to be? A self-described 'hip-hop head' takes an in-depth look at masculinity and manhood in rap and hip-hop, where creative genius collides with misogyny, violence, and homophobia, exposing the complex intersections of culture and commerce."
>
> www.pbs.org/independentlens/hiphop/index.htm

**Documentary: The Shape of Water (2006)**

> This documentary tells the stories of six women who are living in places like Senegal, Brazil, India, and Jerusalem and who do powerful things, such as fight against the practice of female genital mutilation, help protect the rainforest and the biodiversity of the planet, and oppose military occupations.
>
> www.theshapeofwatermovie.com/index.html

### Documentary: Africa on the Move, Part 4: A Woman's World (2010)

"In Africa, as in so many other places, sports have traditionally been a man's world. And until recently, women entered at the risk of being scorned or laughed at. But the amazing Sahar El-Hawary and her female soccer team are no joke. She is the first women's referee in North Africa and also the first female member of the Egyptian Football Federation. She has put women's soccer on the map—not just in her native Egypt but also in the entire Arab world."

www.cbc.ca/player/play/1518390785

### Documentary: End of Men (2011)

"We are living in a time when many of the old ways will no longer work, and it is clear that the way forward for men lies in learning to adapt to a world they no longer dominate. Now men are facing a choice: embrace and adapt to the place the world is becoming—or live among the ruins of a place that no longer exists."

www.cbc.ca/doczone/episodes/end-of-men

## Magazines

### Herizons

"Herizons is a quarterly Canadian feminist magazine that delivers the inside scoop on the Canadian women's movement: health, activism, the environment and legal cases affecting women."

www.herizons.ca/

### Ms. Magazine

An American feminist magazine, "Ms. was the first national magazine to make feminist voices audible, feminist journalism tenable, and a feminist worldview available to the public."

www.msmagazine.com/

### Outwords

A free Winnipeg-based magazine that provides news, analysis, and entertainment for the city's LGBTQ community and its allies.

http://outwords.ca/

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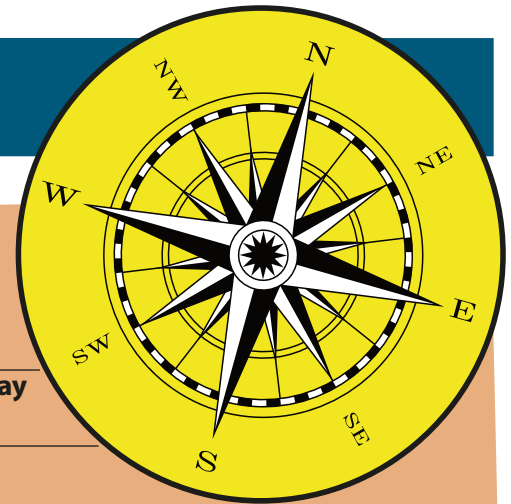
# Health and Biotechnology

## Introduction

Biotechnology is actually an ancient example of humanity using tools, ingenuity, craft, and naturally occurring organisms to make changes to things. It includes processes like using the fermentation process to turn certain fruit juices into wine or hops and malted barley into beer, or the process of turning mammalian milk into curd, yogurt, or cheeses. Humans were using biotechnology long before it was recognized as a scientific practice.

These days the term *biotech* brings up a host of new options to consider. We now think of the genetic alteration of foods, such as altering cereal grains to make their growth resistant to diseases and insects, controlling functions of the cell in order to get bacteria to mass-produce antibiotics, and inserting a specific gene into an organism's DNA in order to get specific products for human use. In addition, many see biotech one day being used to feed the growing population of Earth more efficiently, or to develop "nutriceuticals" that will improve human nutrition in the foods we consume.

In contrast to these hopeful promises, many people worry about the biotech industry because they find it difficult to trust a scientific pursuit that is difficult to understand and seems to be full of very technical unknowns. People are often quick to reject the idea of "tampering" with nature. Even before Mary Shelley penned *Frankenstein, or the Modern Prometheus*, humanity has considered and reconsidered its ability to show foresight in its quest to understand, control, and then alter natural systems. The field of biotechnology is a wide one, but most Canadians will connect with its applications in agriculture, pharmaceutical production, and the emerging group of products we call nutriceuticals.

## Exploring the Issues

### What are some of the complex issues being dealt with today in the field of biotechnology?

- Science, technology, and human health
- Economic implications of health care
- Controversial genetic research (embryonic and stem cell research, animal testing, patenting DNA, genetic intervention and modification, preservation of genetic material, genetic information privacy)
- Longevity and life preservation measures
- Controversial interventions (euthanasia, abortion)
- Medical interventions (plastic surgery, in vitro fertilization)
- Epidemic and pandemic prevention and response
- Disease control (AIDS, virus control, immunization)
- Birth control and maternal and child care
- Pharmaceutical industry (Big Pharma, marketing, testing, control)
- Food and drug management and testing
- Alternative health practices, safety, control and marketing, etc.

### Biotechnology and its Relationship to Sustainability:

Since biotechnology seeks to improve the human condition by harnessing living mechanisms, its applications to the principles of sustainability probably provide the best place to debate what we are doing, why we are doing it, what the future may hold, and a variety of other perspectives. Since biotech practices are already common worldwide—and this has been so for centuries—it does not make a lot of sense to simply state that the practices are wrong, immoral, unethical, or dangerous. This does not mean that humanity should be fully accepting of any and all biotech practices without openly debating the costs, implications, and potential effects of introducing our own desires on natural systems.

## Essential Questions

As there are a multitude of perspectives in the field of biotechnology, we will want to encourage critical inquiry, investigation, historical thinking, and thoughtful discussions. Some of the questions below can guide inquiry into biotechnology issues.

### Essential Questions Related to Media Issues

- How is biotechnology used in the agriculture and foods industries?
- How can we be sure that biotechnology practices are safe?
- Are genetically modified organisms an example of "parallel evolution" of species? What might the implications be?
- How might the Human Genome Project's results affect things such as reproductive technologies in animals? ...in human populations?
- Who regulates the biotech industry in Canada? ...internationally?
- Biotechnology tends to focus its knowledge and product claims on increasing the efficiency of nutritious food production, pharmaceuticals, and the industrial-scale production of "needed" compounds. Who makes the determination of what is deemed "beneficial" to humanity?
- What are the implications of a largely *anthropocentric view* of the world's needs that can be serviced by biotechnological means?
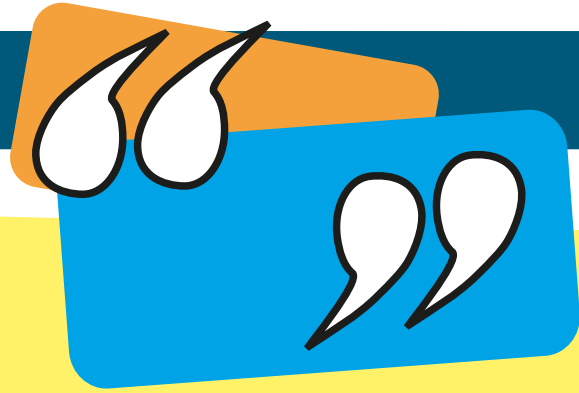
### Current Issues in Biotechnology

- Genetic modification of organisms to suit human needs
- Biological systems as "factories" that mass-produce certain compounds
- Cloning of animals for desired traits
- Gene patents: The genome as property (intellectual property rights)
- The role of governments and the people in biotechnology regulation
- Ethical issues surrounding genetic manipulation of organisms

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### Did you know this about biotechnology?
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■ At the end of the First World War, there were food and resource shortages and people were searching for an industrial solution to the problem. Karl Ereky coined the term *biotechnology* in Hungary in 1919 to describe a technology based on converting raw materials into useful products. He built a slaughterhouse for a thousand pigs and also a fattening farm with space for 50,000 pigs, allowing him to raise over 100,000 pigs a year. The enterprise was enormous, becoming one of the largest and most profitable meat and fat operations in the world. In a book entitled *Biotechnologie*, Ereky stated his belief that biotechnology could solve societal crises such as food and energy shortages. For Ereky, the term biotechnologie described the process of turning raw materials into socially useful products.

■ This new catchword spread quickly after the First World War, as the term biotechnology entered German dictionaries and was taken up abroad by private businesses as far away as the United States. In Chicago, for example, the prohibition of the open sale of alcoholic beverages at the end of the First World War encouraged biological industries to create opportunities for new fermentation products—in particular, a market for non-alcoholic drinks. Emil Siebel, the son of the founder of the Zymotechnic Institute, broke away from his father's company to establish his own company called the Bureau of Biotechnology, which specifically offered expertise in fermented non-alcoholic drinks. (Wikipedia)

■ The following word collage contains a number of terms that come from the biotech lexicon. Students may want to select from among these, conduct a bit of research into the term, and expand on the collage.

## Thought-Provoking Quotations

"The cloning of humans is on most of the lists of things to worry about from science, along with behaviour control, genetic engineering, transplanted heads, computer poetry, and the unrestrained growth of plastic flowers."
    – Lewis Thomas

"Biotechnology is creating a new industrial revolution based on biology instead of petroleum. As biotech processes replace old rust-belt technologies, they are enabling a transformation from a petroleum-based economy to a biologically based economy."
    – Brent Erickson (Gupta et al., xiv)

"Biotech crops are not a solution to solve hunger in Africa or elsewhere."
    – Nnimmo Bassey (Mail & Guardian)

"The first century of the new Millennium will belong…to biotechnology, which will bring unprecedented advances in human and animal health, agriculture and food production, manufacturing, and sustainable environmental management."
    – Ben Ngubane (Pendarvis et al.)

"We have the means right now to live long enough to live forever. Existing knowledge can be aggressively applied to dramatically slow down aging processes so we can still be in vital health when the more radical life-extending therapies from biotechnology and nanotechnology become available. But most baby boomers won't make it because they are unaware of the accelerating aging process in their bodies and the opportunity to intervene."
    – Ray Kurzweil

"A disquieting era of genetic manipulation is coming, one that may revolutionize human capacities, and notions of health. If we treat moral scruples impatiently, as inherently retrograde in a scientifically advancing civilization, we will not be in good moral condition when, soon, our very humanity depends on our being in condition."

— George Will

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"The advance of genetic engineering makes it quite conceivable that we will begin to design our own evolutionary progress."

— Isaac Asimov (Hodge)

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"You cannot go on 'explaining away' forever: you will find that you have explained explanation itself away. You cannot go on 'seeing through' things forever. The whole point of seeing through something is to see something through it."

— C.S. Lewis

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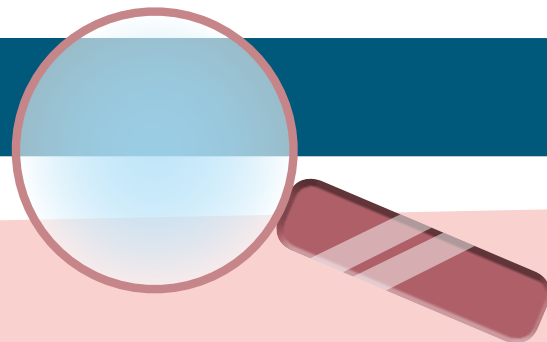
# Glossary

**Bio-based products:**

Fuels, chemicals, building materials, or electric power or heat produced from biological material(s). The term may include any energy, commercial, or industrial products, other than food or feed, that use biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials. (USDS)

**Biological boundaries:**

A concept that differentiates one organism from another and suggests that organisms cannot or should not exchange genetic material. An alternative concept is that genes are defined not by the organism from which they came, but by their function. As scientists have identified genes in seemingly non-related organisms such as plants and humans, they have found identical genes in each. (USDS)

**Biopharming:**

The production of biopharmaceuticals in plants or domestic animals.

**Biotechnology:**

A set of biological techniques developed through basic research and now applied to research and product development. Biotechnology refers to the use of recombinant DNA, cell fusion, and new bio-processing techniques. (USDS)

**Biotechnology-derived:**

The use of molecular biology and/or recombinant DNA technology, or in vitro gene transfer, to develop products or to impart specific capabilities in plants or other living organisms. (USDS)

**Bovine spongiform encephalopathy (BSE):**

A disease of cattle, related to scrapie of sheep, also known as "mad cow disease." It is hypothesized to be caused by a prion, or small protein, which alters the structure of a normal brain protein, resulting in destruction of brain neural tissue.

**Bt corn:**

A corn plant that has been developed though biotechnology so that the plant tissues express a protein derived from a bacterium, Bacillus thuringiensis, which is toxic to some insects but non-toxic to humans and other mammals. (USDS)

**Cell:**

The lowest organizational level of life thought to be possible. Most organisms consist of more than one cell, which becomes specialized into particular functions to enable the whole organism to function properly. Cells contain DNA and many other elements to enable the cell to function. (USDS)

**Chromosomes:**

The self-replicating genetic structure of cells containing the cellular DNA. Humans have 23 pairs of chromosomes. (USDS)

**Creutzfeldt-Jakob Disease (CJD):**

A disease of humans hypothesized to be caused by a prion, or a small protein, which alters the structure of a normal brain protein, resulting in destruction of brain neural tissue. The most common form is thought to have genetic origins. There is strong epidemiologic and laboratory evidence for a causal association between new variant CJD and BSE.

**Cultivar:**

Synonymous with variety; the international equivalent of variety. (USDS)

**Double helix:**

The twisted-ladder shape that two linear strands of DNA assume when complementary nucleotides on opposing strands bond together. (USDS)

**DNA (deoxyribonucleic acid):**

The genetic material of all cells and many viruses. DNA is a double-stranded molecule that encodes genetic information. It is held together by weak bonds between base pairs of nucleotides. The four nucleotides in DNA contain the bases adenine (A), guanine (G), cytosine (C), and thymine (T). In nature, base pairs form only between A and T and between G and C; thus, the base sequence of each single strand can be deduced from that of its partner. (USDS)

**Embryonic stem (ES) cells:**

Cell lines derived from early embryos that have the potential to differentiate into all types of somatic cells as well as to form germ line cells, and hence whole animals, when injected into early embryos.

**Enucleated oocyte (cytoplast):**

An egg cell from which the nucleus has been removed mechanically.

**Eukaryote:**

Organism whose cells have (1) chromosomes with nucleosomal structure and are separated from the cytoplasm by a two-membrane nuclear envelope, and (2) compartmentalization of functions in distinct cytoplasmic organelles. Contrast prokaryotes (bacteria and cyanobacteria). (USDS)

**Feral:**

Refers to an individual or population that has returned to the wild after a history of domestication.

**Fibroblast:**

A type of relatively undifferentiated cell found in many parts of the body that is involved primarily in healing wounds. Fibroblasts are relatively easy to grow in cell culture and often are used for this purpose.

**Gene:**

The fundamental physical and functional unit of heredity. A gene is an ordered sequence of nucleotides located in a particular position on a particular chromosome that encodes a specific functional product (such as a protein or RNA molecule). (USDS)
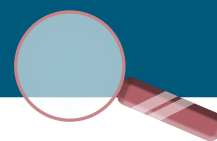
**Gene gun:**

A device invented at Cornell University that allows genetic material to be introduced into a new organism. The genetic material from the donor is "shot" into cells of the recipient, and the material is incorporated into its DNA. (USDS)

**Gene splicing:**

The isolation of a gene from one organism and then the introduction of that gene into another organism using techniques of biotechnology. (USDS)

**Genetic engineering:**

The technique of removing, modifying, or adding genes to a DNA molecule to change the information it contains. By changing this information, genetic engineering changes the type or amount of proteins an organism is capable of producing, thus enabling it to make new substances or perform new functions. (USDS)

**Genetically modified organism (GMO):**

Often, the label GMO and the term transgenic are used to refer to organisms that have acquired novel genes from other organisms by laboratory "gene transfer" methods. (USDS)

**Genetics:**

The study of the patterns of inheritance of specific traits. (USDS)

**Genome:**

All the genetic material in the chromosomes of a particular organism; its size is generally given as its total number of base pairs. (USDS)

**Genomics:**

The mapping and sequencing of all the genetic material in the DNA of a particular organism, as well as the use of information derived from genome sequence data to further elucidate what genes do, how they are controlled, and how they work together.

**Genotype:**

The genetic identity of an individual. Genotype often is evident by outward characteristics. (USDS)

**Herbicide-tolerant crop:**

Crop plants that have been developed to survive application(s) of one or more commercially available herbicides by the incorporation of certain gene(s) via biotechnology methods such as genetic engineering or traditional breeding methods (such as natural, chemical, or radiation mutation). (USDS)

**Hybrid:**

Seed or plants produced as the result of controlled cross-pollination as opposed to seed produced as the result of natural pollination. Hybrid seeds are selected to have higher quality traits (for example, yield or pest tolerance). (USDS)

**Labelling of Foods:**

The process of developing a list of ingredients that are contained in foods. Labels imply that the list of ingredients can be verified. The federal Department of Consumer and Corporate Affairs has jurisdiction over what is stated on food labels in Canada. (USDS)
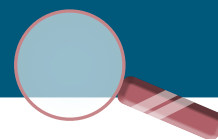
**Microinjection:**

The introduction of DNA into the nucleus of an oocyte, embryo, or other cell by injection through a very fine needle. (NRC)

**Molecular biology:**

A general term referring to the study of the structure and function of proteins and nucleic acids in biological systems.

**Mutation:**

Any inheritable change in DNA sequence. (USDS)

**Mutation breeding:**

Commonly used practices in plant breeding and other areas in which chemicals or radiation are applied to whole organisms (for example, plants or cells) so that changes in the organism's DNA will occur. Such changes are then evaluated for their beneficial effects, such as disease resistance.

**Nuclear reprogramming:**

Restoration of the correct embryonic pattern of gene expression in a nucleus derived from a somatic cell and introduced into an oocyte.

**Organic agriculture:**

A concept and practice of agricultural production that focuses on production without the use of synthetic pesticides.

**Pesticide resistance:**

A genetic change in response to selection by a pesticide, resulting in the development of strains capable of surviving a dose lethal to most individuals in a normal population. Resistance may develop in insects, weeds, or pathogens.

**Prion-related protein (PrP):**

A normal protein, expressed in the nervous system of animals, whose structure when altered (by interaction with altered copies of itself) is the cause of scrapie in sheep, BSE in cattle, and Creutzfeldt-Jakob disease in humans.

**Protein:**

A large molecule composed of one or more chains of amino acids in a specific order. The order is determined by the base sequence of nucleotides in the gene that codes for the protein. Proteins are required for the structure, function, and regulation of the body's cells, tissues, and organs, and each protein has unique functions. Examples are hormones, enzymes, and antibodies.

**Recombinant DNA technology:**

A procedure used to join together DNA segments in a cell-free system (an environment outside a cell or organism). Under appropriate conditions, a recombinant DNA molecule can enter a cell and replicate there, either autonomously or after it has become integrated into a cellular chromosome. (NRC)
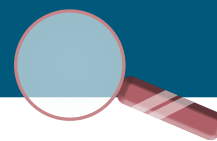
**Selective breeding:**

Making deliberate crosses or matings of organisms so the offspring will have a desired characteristic derived from one of the parents.

**Tissue culture:**

A process of growing a plant in a laboratory from cells rather than seeds. This technique is used in traditional plant breeding as well as when using agricultural biotechnology techniques.

**Transgenic:**

Containing genes altered by the insertion of DNA from an unrelated organism. Taking genes from one species and inserting them into another species to get that trait expressed in the offspring.

**Vector:**

A type of DNA, such as a plasmid or phage, that is self-replicating and that can be used to transfer DNA segments among host cells. Also, it is an insect or other organism that provides a means of dispersal for a disease or parasite. (NRC)

**Xenotransplantation:**

Transplantation of cells, tissues, or organs from one species to another. (NRC)

**Zygote:**

A fertilized oocyte (egg cell). (NRC)

Glossary definitions were adapted from the following resources (as cited) under the terms for a work of the United States government, as defined by the United States copyright law, under section 105 of the *Copyright Act*.

U.S. Department of State (USDS). *Economic Perspectives: An Economic Journal of the U.S. Department of State* 8.3 (September 2003): 36–38.

National Research Council (U.S.) Committee on Identifying and Assessing Unintended Effects of Genetically Engineered Foods on Human Health (NRC). *Safety of Genetically Engineered Foods: Approaches to Assessing Unintended Health Effects*. Washington, DC: National Academies Press, 2004. Available online at https://www.ncbi.nlm.nih.gov/books/NBK215779/

## Resources

### Print

**Biotechnology for Beginners**

Renneberg, Reinhard. *Biotechnology for Beginners*. Arnold L. Demain (ed.). Burlington, MA: Academic Press, 2006.

This book will appeal to readers without a scientific background but who are interested in an entertaining and informative introduction to the key aspects of biotechnology. It discusses the opportunities and risks of individual technologies and provides historical data in easy-to-reference boxes, highlighting key topics. *Biotechnology for Beginners* covers all major aspects of the field, from food biotechnology to enzymes, genetic engineering, viruses, antibodies, and vaccines, to environmental biotechnology, transgenic animals, analytical biotechnology, and the human genome. It also includes articles from influential scientists such as Alan Guttmacher, Carl Djerassi, Frances S. Ligler, Jared Diamond, Susan Greenfield. Each chapter concludes with a summary, annotated references, links to useful websites, and appealing review questions.

**Introduction to Biotechnology**

Pathak, Ravi. *Introduction to Biotechnology*. New Delhi, IN: Atlantic Publishers, 2006.

This book describes in detail the processes and methods used to manipulate living organisms, or the substances and products from these organisms, for medical, agricultural, and industrial purposes. It acquaints the reader with genetic engineering, bioinformatics, animal and plant biotechnology, environmental biotechnology, bio-ethics, and bio-safety.

**Introduction to Biotechnology: An Agricultural Revolution**

Herren, Ray V. *Introduction to Biotechnology: An Agricultural Revolution*. Clifton Park, NY: Delmar Cengage Learning, 2012.

This book provides a basic understanding of the concepts that contribute to agriculture's biotechnology revolution. Each chapter of this comprehensive text includes topics such as cell functions, genetics and genetic engineering, the uses of biotechnology, and biotech careers. Also included is a thorough examination of the controversy and concerns over the use of genetic engineering, genetically modified organisms, and cloning, as well as their potential dangers to humans and the environment. This information enables the reader to engage and utilize the text's science-based content in classroom discussions and research activities.

## Science and Religion: Understanding the Issues

Morvillo, Nancy. *Science and Religion: Understanding the Issues*. New York, NY: Wiley-Blackwell, 2010.

From the heliocentric controversy and evolution, to debates on biotechnology and the environment, this book offers a balanced introduction to the key issues in science and religion. This book spans the interface between science and religion, and includes illustrations of scientific concepts throughout. It explores key historical issues, including the heliocentric controversy and evolution, but also covers topics of current importance such as biotechnology and environmental issues. It is structured in to sections covering cosmology, evolution, and ethics in a scientific age.

## Articles

## Towards a global code of ethics for modern foods and agricultural biotechnology

Gesche, Astrid H., Alexander Haslberger, and RoseEmma Mamaa Entsua-Mensah. "Towards a global code of ethics for modern foods and agricultural biotechnology" (2004). In *Science, Ethics and Technology: Conference Proceedings*. J. de Tavernier and S. Aerts (eds.). Leuven, Belgium: EURSAFFE 2004, 5th Congress of the European Society for Agricultural and Foods Ethics. Catholic University of Leuven, pp. 125–128. See http://eprints.qut.edu.au/6569/

## Online

## Global Issues: Social, Political, Economic and Environmental Issues that Affect Us All.

www.globalissues.org/issue
Here you will find food and agriculture issues such as genetically-modified foods)

## Council for Biotechnology Information.

www.whybiotech.com/?p=1636 (A generally very pro-biotech feed, with a concentration on issues related to agriculture and sustainability)

## About.com Biology

http://biology.about.com/library/bldyknowbiotech.htm
This site provides background on dozens of current trends and areas of research that are driving the biotech enterprise right now.

## Biology Online:

www.biology- online.org/kb/biology_articles/biotechnology.html

## BIOTECanada:

Self-described as "Canada's voice for biotechnology"
www.biotech.ca/en/default.aspx

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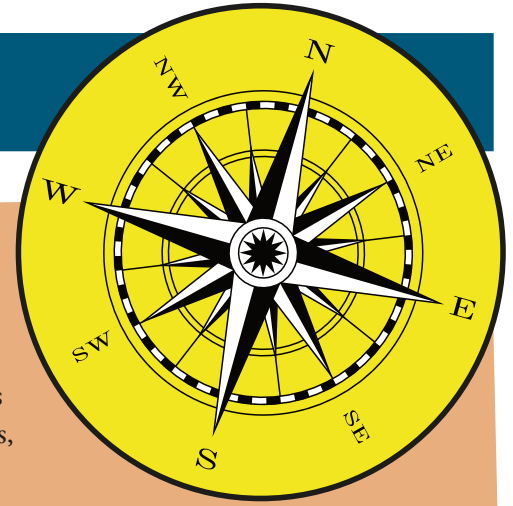*Media*

## Introduction

### The Power of Media

The power of media is unquestionable. Whether the medium is print, audio, visual, or digital, the impact of media is profound and far-reaching. The media's effect may be positive or negative, but it is seldom neutral. At its best, media serves to inform, communicate, and entertain. At its worst, it skews perceptions of reality and manipulates emotions. It creates artificial needs through advertising that drive consumerism and result in the depletion of global resources.

As media critic George Gerbner stated, "For the first time in human history, most of the stories about people, life, and values are told not by parents, schools, or others in the community who have something to tell, but by distant conglomerates that have something to sell." (*Gerbner, p. 2*) Analyzing and evaluating who owns and controls media enables us to critically reflect and think about the content and purpose of the stories told by mass media.

> "The medium is the message. This is merely to say that the personal and social consequences of any medium — that is, of any extension of ourselves — result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology...
> We shape our tools and afterwards our tools shape us."
> – Marshall McLuhan

## Exploring the Issues

The principles of media literacy should be incorporated throughout the course as part of each inquiry. However, students may also undertake an in-depth study of key media- related issues, including those related to the control and impact of media. The following are some suggested media issues for inquiry.

### Control of Media – Who owns it? Who controls it? To what end?

- convergence and concentration of media ownership
- agenda (profit, power, propaganda, social engineering)
- bias through selection and omission
- marketing and advertising strategies
- freedom of the press: media regulation, ethics, legislation, and censorship
- public control and "citizen journalism"
- alternative media and social justice

### Impact of Media – Who is affected? How are they affected?

- creation and perpetuation of racial, class, and gender stereotypes
- psychological influence (e.g., objectification, sexualization, body image, fear)
- violence in media
- the rise of "infotainment"
- power and influence of advertising (e.g., pervasiveness, embedded messages, product placement)
- popular culture and the decline of social mores

## Essential Questions

Inquiry questions related to media issues may include the following:

Although there are no definitive answers as to how to solve issues related to the influence and control of media, students will use critical inquiry, investigation, and discussion to enrich their understanding about the role of media in their lives and in today's world. Critical media literacy will enable students to progress from passive, unquestioning recipients of information to active, responsible, and informed citizens.

Inquiry questions related to media issues may include the following:

- How does media influence, affect, and control us?
- How has this influence changed through time?
- Do media create or reflect our world?
- How free is the press?
- What is the relationship among media control, power, and profit?
- What is the impact of new and alternative media?
- How does media literacy help us to become critical thinkers and responsible citizens?

### What do we mean by media?

The media communicates messages to a mass audience using a variety of means.

*Traditional media* communicates content in a mass-produced format using words, images, and/or sound: radio, television, film, print, audio, or audio-visual. Traditional media is most often used to refer to newspapers, advertising, magazines, books, and other paper-based publications.

*New media* refers to content that is available on demand through a variety of devices and includes digital interactivity in the form of user participation and feedback. What distinguishes new media from traditional media is the digitization of content. *Wikipedia*, an online encyclopedia, is one of the most well known examples of new media, combining Internet-accessible digital text, images, and video with web links, contributor participation, interactive feedback, and the formation of a participant community of editors and writers. A significant factor in new media is the so-called "democratization" of the creation, publication, distribution, and consumption of media content.

### What is critical media literacy?

Critical media literacy is the ability to access, analyze, evaluate, and create all forms of media, to critically understand the power of media, and to be aware of our relationship to media. A media-literate student is both a critical thinker and a skeptic who understands the need to identify information sources, as well as their motives and techniques.

### Key principles to keep in mind

The Ontario Ministry of Education published a *Media Literacy Resource Guide* that included the following key principles of media literacy:

■ All media are intentional and carefully crafted constructions. They are not mirror reflections of reality.

■ The media shapes our interpretations, attitudes, and observations about how the world works.

■ Audiences interpret and negotiate the meaning of media messages.

■ Media have commercial implications. Mass media production has an economic basis that determines content, technique, and distribution.

■ Media contain implicit or explicit beliefs and values.

■ Media have social and political implications.

■ Form and content are closely related in the media.

■ Each medium has a unique aesthetic form. (Ontario Ministry of Education, 1989)

### Questions posed by the media-literate person in response to any media message:

■ Who created this message?

■ What techniques does this message use to attract my attention?

■ How might others understand this message?

■ Which values and lifestyles are represented and which are absent?

■ Why was this message created?

**DYK?**
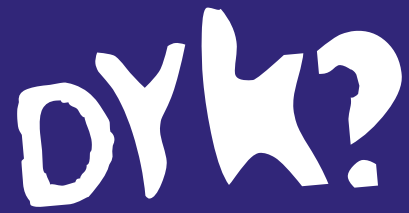
## Did You Know?

"Children spend more time watching television than in any other activity except sleep." (Huston et al.)

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"In 1983 there were fifty dominant media corporations; today there are five. These five corporations decide what most citizens will—or will not—learn." (Bagnikian)

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"As of 2006, there were eight giant media companies in the US. They include: Disney, AOL-Time Warner, Viacom, General Electric, News Corporation, Yahoo!, Microsoft, and Google." (Krasny)

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"There is a near absence of female characters in top-grossing American motion pictures. After evaluating the 101 top-grossing G-rated films from 1990 to 2004, of the over 4,000 characters in these films, 75% were male, 83% of characters in crowds were male, 83% of narrators were male, and 72% of speaking characters were male. This gross underrepresentation of women or girls in films with family-friendly content reflects a missed opportunity to present a broad spectrum of girls and women in roles that are non-sexualized." (Bazzini et al.)

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"The average American child sees 200,000 violent acts and 16,000 murders on television by age 18." (Czaja)

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"Sexualization of girls in the media has negative effects in a variety of domains, including physical and mental health. There is ample evidence that it leads to low self-esteem, eating disorders, and has a negative effect on healthy sexual development in girls." (APA)

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"The media have a lot of power to endorse stereotypes. We go into First Nations communities to talk to youth about gangs. When asked, the kids estimate that about 95% of Aboriginal youth is involved in gangs. The actual number is 21%. Why do they think these numbers are so high? It's because this is what they get from television and newspapers." (Swan)

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## Thought-Provoking Quotations

"Whoever controls the media controls the mind."
　　– Jim Morrison

"Cinema, radio, television, magazines are a school of inattention: people look without seeing, listen in without hearing."
　　– Robert Bresson

"I believe in equality for everyone, except reporters and photographers."
　　– Gandhi (Tripathi)

"An unconscious people, an indoctrinated people, a people fed only partisan information and opinion that confirm their own bias, a people made morbidly obese in mind and spirit by the junk food of propaganda is less inclined to put up a fight, ask questions and be skeptical. And just as a democracy can die of too many lies, that kind of orthodoxy can kill us, too."
　　– Bill Moyers

"The effect of the mass media is not to elicit belief but to maintain the apparatus of addiction."
　　– Christopher Lasch (Smith et al.)

"Advertising, in fact, is the main storyteller of our society. The right question to ask is not whether this or that ad sells what it is advertising, but what are the consistent stories that advertising tells as a whole about what is important in the world, about how to behave, and about what is good and bad?"
　　– Sut Jhally

"The media is too concentrated, too few people own too much. There're really five companies that control 90 percent of what we read, see and hear. It's not healthy."
    – Ted Turner

"If the nervous system of any organism is obstructed, important messages cannot get through and its health suffers. So it is with information in the media of the body politic."
    – Carl Jensen

"Media service to the corporate sector is reflexive: the media are major corporations. Like others, they sell a product to a market: the product is the audiences and the market is other businesses."
    – Noam Chomsky

## Making a Difference

| Name | How they make a difference |
| --- | --- |
| **Project Censored Media Freedom Foundation Carl Jensen** | Project Censored was founded by the late Carl Jensen in 1976, and is a media research program based out of Sonoma State University (SSU) in California. Project Censored researches global news stories that are underreported, ignored, misrepresented, or censored by the U.S. corporate media. They also publish a yearbook called *Censored: The News That Didn't Make the News*.<br><br>www.projectcensored.org |
| **Adbusters** | Adbusters is a non-profit, Vancouver-based organization that was founded in 1989 by Kalle Lasn and Bill Schmalz. Its philosophical stance is anti-advertising, anti- consumerist, and pro-environment, although it supports many other political and social causes as well. Adbusters is renowned for its social marketing campaigns including Buy Nothing Day and Digital Detox Week.<br><br>www.adbusters.org/ |
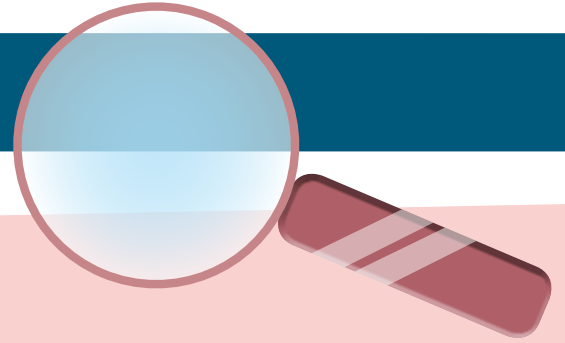
## Glossary

**Bias:**
A preconceived preference or prejudice for or against something (e.g., a person, thing, or even an idea).

**Branding:**
Formulating a public image for a specific product or service.

**Censorship:**
Preventing the exchange of information on the premise that the information is too offensive or objectionable to be disseminated.

**Citizen journalism:**
Also referred to as grassroots or participatory journalism, this type of journalism refers to when private individuals without formal journalism training collect, report, and publish information. The information can take many forms, from a podcast editorial to a report about a city council meeting on a blog. It can include text, pictures, audio, and video.

**Convergence:**
When different media (e.g., print, film, music) come together under one corporate umbrella, often because of advances in technology (e.g., smart phones).

**Critical autonomy:**
The ability of a reader to analyze and interpret a text in a manner that is different than the writer intended.

**Critical viewing:**
The ability of a viewer to analyze and interpret a piece of visual media.

**Flak:**
Described by Herman and Chomsky as "negative responses to a media statement or [TV or radio] program." It can take the form of mass letter-writing campaigns to political decision makers and social media petitions.

**Hegemony:**
The dominance of one group over others, often through the media's dissemination of the idea that the dominated groups are better off with the dominant group in power.

**Mainstream media (MSM):**
The large, commonly regarded organizations that disseminate messages to the general public through print, radio, television, and the Internet.
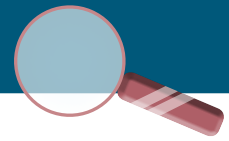
**Marketing:**
The act of promoting or selling goods and services.

**Mass media:**
See *Mainstream media (MSM)*.

**Media literacy:**
The ability to access, critically analyze, evaluate, and create media.

**Oppositional:**

The state or position of being opposed to the position that is put forth in a media text.

**Product placement:**

The paid inclusion of commercial products in video and print media for advertising purposes.

**Propaganda:**

Potentially biased or misleading information that is intended to promote a particular point of view or political cause.

**Psychographics:**

The application of psychological criteria, such as attitudes and ideologies, to the study of demographics, particularly in relation to market research.

**Social media:**

Web-based communication tools that enable users to generate their own content and share it with other users.

**Stereotyping:**

The expression of preconceived, oversimplified, and biased notions of the common characteristics of particular social or cultural groups.

**Subtext:**

Messages in texts that are only indirectly related and implied, but not explicitly stated.

## Resources

### Books

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## Websites

**Center for Media Literacy**

The Center for Media Literacy is an educational organization dedicated to supporting media literacy education by helping people develop necessary critical thinking and media production skills for the 21st-century.
[www.medialit.org](www.medialit.org)

**Persuasion with Principle**

Dr. Nancy Snow is a professor of philosophy and the director of the Institute for the Study of Human Flourishing at the University of Oklahoma, her research has focused on moral psychology and on virtue ethics.
[http://nancysnow.com/](http://nancysnow.com/)

**Media Watch**

Media Watch promotes K¬–12 media literacy and challenges abusive stereotypes and other biased information through education and action.
[www.mediawatch.com/](www.mediawatch.com/)

**Project Censored**

"The news that didn't make the news." Project Censored exposes news censorship, promotes independent journalism and critical thinking, and educates students and the public about the importance of a free press.
[http://projectcensored.org/](http://projectcensored.org/)

**UNESCO**

This site is a resource for sustainable education in the 21st century.
[http://en.unesco.org/themes/education-21st-century](http://en.unesco.org/themes/education-21st-century)

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*Modern Slavery*

## Introduction*

> "Freedom is indivisible, and when one man is enslaved, all are not free."
> – John F. Kennedy

*Slavery* is a word often associated with the past, evoking unimaginable injustices we would rather forget. However, there remain a staggering 27 million slaves in the world today, a number equivalent to the entire population of Canada in the early 1990s. While slavery in the traditional sense has been based on the ownership of one individual by another, modern slavery takes this form and many others. Modern slavery includes human trafficking, debt bondage, forced labour, hereditary slavery, child soldiery, servile forced marriage, and forced prostitution. Modern slavery is not limited to any single race, gender, or age group. It affects men, women, and children in Canada and around the world.

During the four centuries of trans-Atlantic slavery, the slave trade was in fact legal. Today, slavery has been officially abolished globally. In theory, every state is responsible for ensuring that slavery is not occurring within its borders. In reality, however, it is one of the most severe abuses of human rights today. Slavery, although an illegal activity, remains an ever-present—albeit concealed—aspect of contemporary life. There are reported cases of slavery in every country in the world today with (at the time of writing) two exceptions: Iceland and Greenland.

Slavery is a global criminal industry, netting about $32 billion annually. This amount is approaching and set to surpass illegal drug trafficking and illicit arms sales. While most nations have anti-human trafficking laws, enforcement is erratic or non-existent. Public awareness of modern slavery is low, enabling traffickers to lure thousands of victims into forced labour situations. Canada, for instance, is a source, transit, and destination country for human trafficking.

Slavery is increasingly present worldwide in both large urban areas and smaller cities and towns, including within North America. According to the United Nations, an estimated 600,000 to 800,000 people are trafficked internationally each year, with as many as 17,500 people trafficked into the United States alone. Most modern-day slaves are women and children.

Modern slavery differs from chattel slavery of the 18th and 19th centuries in three important respects:

- The cost of slaves has fallen to a historical low. Slaves can now be acquired in some parts of the world for as little as five dollars.

- Slaves are now held for a shorter length of time and are more likely to be seen as disposable.

- Slavery is now globalized. Modern slavery is part of the process of globalization itself. This "dark underbelly of globalization," as Hillary Clinton put it, is manifestly different than traditional, more publicized forms of slavery, yet it retains many of its characteristics: slaves

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\* This backgrounder was developed by the *Alliance Against Modern Slavery* for this course. See the final page of this backgrounder for details about this organization.

today are forced to work without pay under the threat or use of violence every day. The millions of "wage slaves" who make as little as $1 or $2 a day are not modern slaves under this definition from which the 27 million estimate has been derived, but rather another category of individuals who live in destitution.

## Trickery and Poverty

Slavery continues to thrive and, in many instances, relies upon trickery and poverty. Individuals are very often vulnerable to slavery because of a lack of job opportunities. This leads many people to accept work elsewhere, often in distant countries, placing them in danger as they migrate to unknown destinations. There have been hundreds of documented cases in which women from locations such as Southeast Asia and Eastern Europe have signed contracts in which they thought they would become domestic workers in upper-class households. Upon arrival, however, they were forced to work as prostitutes. Other all-too-common scenarios include cases in which parents sell their children. Poverty can be attributed as the underlying structural reason for such human transactions. Victims of slavery very often do not speak the language of the receiving country and are unable to communicate or seek help. Their passports are generally confiscated by the perpetrators, and victims live with little or no money and under the constant threat of violence and even death. Men, women, and children who believed they were seeking a new life find themselves trapped as slaves.

## Confronting Slavery in Canada

How do we confront and put an end to modern slavery? There are several challenges in this regard, including the need for us to change how we view the issue of slavery.

Modern slavery and the modern slave trade do not only involve the sexual exploitation of women. Labour exploitation is surprisingly common worldwide, and each one of us needs to be aware of the source of our product purchases (e.g., coffee, chocolate, rugs...) and who produces them. In many cases, slavery is involved.

Another challenge is getting non-profit, private, public, and government organizations collectively on board and working together more effectively. Historically speaking, a variety of key players played an important role in efforts to abolish the slave trade and slavery across classes, including former slaves, the general public, Members of Parliament, the media, farmers, religious leaders, academics, and writers. The trans-Atlantic slave trade was legally abolished for the first time in history in Britain in 1807, in large part because of the efforts of citizens who participated in boycotts and signed national anti-slave trade petitions presented before the British Parliament. This social activism on behalf of the oppressed who could not speak for themselves ultimately led to the creation of Anti-Slavery International, the world's first human rights organization, proving that everyday people have the power to create change.

# Modern Slavery

Modern slavery may very well be the world's most under-publicized human rights crisis. In the developing world, it is intimately related to the struggle for gender equality and other important issues, including access to potable water, adequate food, health care, and education. Creating awareness and compelling the public to take a stance on behalf of those without voices begins with each one of us.
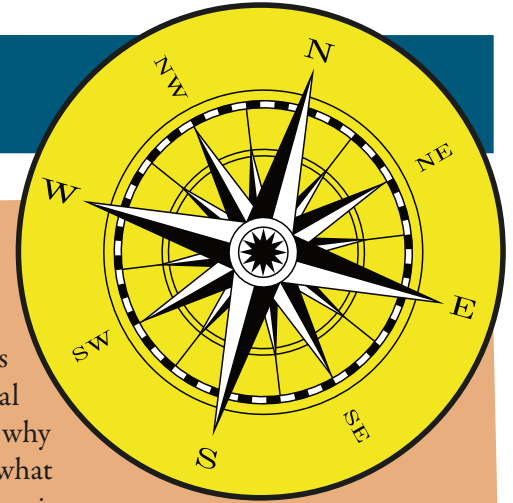
## Exploring the Issues

Students who have a solid understanding of modern slavery issues are critical thinkers who seek to apply their knowledge in practical ways. They have a solid grasp of what makes exploitation slavery, why making slavery illegal in the past did not make it disappear, and what each person can do to help end slavery. Inquiry into modern slavery issues will take students in multiple directions, including the causes that allow slavery to continue and the forms slavery takes in Canada.

### What are the causes?

- Poverty, vulnerability, war, and conflict zones, and lack of basic rights being protected
- Inequality, lack of access to land and education, lack of law enforcement
- Commodities and consumerism
- Corruption, apathy, and desperation
- Lack of awareness and action

### What forms of slavery exist in Canada?

- Human trafficking for forced prostitution, forced labour, and forced marriage
- Victims are local and global
- There are also cases of "sex tourism" involving Canadians abroad

## Essential Questions

Although there are no definitive answers as to how to solve issues related to modern slavery, through critical inquiry, investigation, and discussion, students will grow and evolve. They will progress from passive, unquestioning recipients of information to active and responsible informed citizens.

Inquiry questions related to modern slavery issues may include the following:

- What is contemporary slavery?
- Where is slavery occurring?
- What forms has slavery taken in the past? What are these forms today? What are they in Canada?
- What is the link between slavery and poverty?
- Why was the transatlantic slave trade abolished? Did slavery end after this?
- What are the legacies of the transatlantic slave trade for us in a globalized world?
- What is the link between slavery and what we buy?
- What did being an activist mean during the fight against slavery in the past? What does it mean today?
- Can people change society by speaking out?
- How can young people act to end modern-day slavery?

**DYK?**

## Did You Know…?

Slavery is illegal everywhere in the world, but there are still 27 million slaves in the world today.

The average age of entry for girls and boys into forced child prostitution ranges from 11 to 14.

Slaves can be found working in a variety of places, including farms, brothels, homes, mines, and even restaurants.

The average cost of a human slave around the world today is $90.

The RCMP estimates that 800 to 1200 people are trafficked in Canada every year. The vast majority of them are women and girls. Non-governmental organizations peg the number in the thousands with a significant number of Indigenous children and women.

On January 17, 2010, Canada passed MP Joy Smith's Bill C-268 to amend Canada's Criminal Code to introduce a new human trafficking offence specifically addressing child traffickers. This law provides a minimum sentence of five years imprisonment for anyone convicted of trafficking a minor in Canada and a minimum of six years imprisonment for cases with aggravating factors.

Globally speaking, human trafficking constitutes under 20% of modern slavery, but generates $32 billion annually. It is the fastest growing criminal enterprise on the planet.

Traffickers are often of the same ethnicity as the victims they control. In Canada, Asian and Eastern European organized crime groups have been most involved in the trafficking of women from, for example, China, South Korea, Thailand, Cambodia, The Philippines, Russia, and Latin America

The travel and tourism industry plays a vital role in facilitating child sex trafficking. Many hotels become havens for "child sex tourism," in which traffickers and sex offenders utilize hotel facilities to carry out their illegal activities. There are no set human rights policies at many hotels or programs to train employees in how to identify and handle these illegal activities when discovered.

The Internet has become the new marketplace for certain forms of slavery, including trafficking in children and adults for sexual purposes. This is because of the anonymity, relative safety, ability to easily lie about age, and the low cost of using the Internet to set up appointments and transactions.

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Over 1 million children enter the global sex trade every year.

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Local news publications allow postings for unlicensed "massage parlours" and "escort services" in their classified sections. Some of these establishments have proven links to sex trafficking.

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The abolition movement in the 18th and 19th centuries was the first time that hundreds of thousands of different people joined together for a common cause. This was achieved by developing many of the campaign styles that are familiar to us today: petitions, boycotts, posters, local and national committees, newsletters, and much more. Even though modern technology has changed the ways we campaign (such as sending emails instead of writing letters), the ideas behind these methods come from this time in history.

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The campaigning tactics women anti-slavery activists used for abolition in the 18th and 19th centuries and the skills they learned helped to create the women's movement. Women began to fight for their right to vote and to stop being treated like second-class citizens.

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Worldwide, at least 12.3 million children and adults work in forced labour. This is modern slavery and is linked to the products you buy. Investigations show that more than 122 types of products are made using forced or child labour in at least 58 different countries. See these products and countries on the map on the following website: www.productsofslavery.org/

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In 2002, a survey estimated that over 200,000 children were working in hazardous conditions on cocoa farms in the Ivory Coast. Reports confirm that children are still being trafficked into cocoa farms in the Ivory Coast and Ghana.

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Experts suggest it will cost $10.8 billion to end slavery in 25 years. This is equivalent to what Americans spend on Valentine's Day. We can end slavery in our lifetime. Everyone has a role to play, including government, business, international organizations, consumers, and YOU.

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Source: Allianceagainstmodernslavery.org (AAMS)
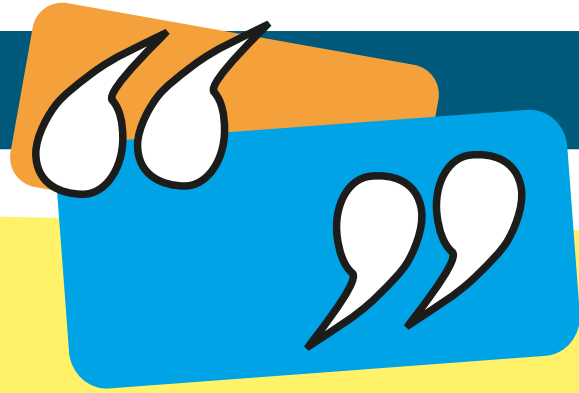
## Thought-Provoking Quotations

"Men, women, and children are not property but human beings. The international community should declare, loudly and more strongly than ever, that we are all members of the human family. Slavery has no place in a world of human rights."
– Kofi Annan (Panchitkaew)

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has."
– Margaret Mead (Source obscure)

"If I look at the mass, I will never act. If I look at the one, I will."
– Mother Teresa (Slovic)

"Not to transmit an experience is to betray it."
– Elie Wiesel

"We are too young to realize that certain things are not possible, so we will do them anyway."
– William Pitt the Younger (Source obscure)

"All that is necessary for evil to succeed is that good men do nothing."
– Edmund Burke (Source obscure)

"Between stimulus and response, there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom."
– Viktor Frankl (Covey)

"If slavery is not wrong, nothing is wrong."
    – Abraham Lincoln

"Slavery is the dark underbelly of globalization."
    – Hillary Clinton

"The grand object of my parliamentary existence is the abolition of the slave trade. I shall never sacrifice this cause to motives of political convenience or personal feeling."
    – William Wilberforce (Pollock)

"Hope has two beautiful daughters. Their names are anger and courage: anger at the way things are, and courage to change things to the way they ought to be."
    – St. Augustine (Brown)

"Slavery can only be abolished by raising the character of the people who compose the nation; and that can be done only by showing them a higher one."
    – Maria Weston Chapman

"It's easier to be ignorant and say I don't know about the problem. But once you know, once you've seen it in their eyes, then you have a responsibility to do something. There is strength in numbers, and if we all work together as a team, we can be unstoppable."
    – Craig Keilburger

## Making a Difference

| Name | How they make a difference |
|---|---|
| **Emmanuel Jal** | Emmanuel Jal grew up surrounded by a civil war in Southern Sudan. When his mother was killed when he was seven years old, the Rebel army (SPLA) took him and forced him to become a child soldier. |
| | He was very lucky to survive fighting in the war and managed to escape along with 300 other child soldiers. They made a three-month trek to safety without any supplies, and not very many survived. Emmanuel was eventually rescued by a British aid worker named Emma McCune, who smuggled him to freedom in Kenya. |
| | Emmanuel went on to write a memoir of his experiences called *War Child: A Child Soldier's Story*, and he is now a world famous rap artist. Emmanuel has worked with the United Nations, Oxfam, and Amnesty International to raise awareness of child soldiers and the illegal arms trade. He also founded GUA Africa, an organization that was created to help people overcome the effects of war and poverty and to help them get an education. |
| **Timea E. Nagy** | Born of a police woman and painter in Budapest, Hungary, Timea wrote, produced, and hosted her own live-to-air shows. She interviewed well known musicians such as the Backstreet Boys. In 1998, Timea answered an advertisement to work as a housekeeper or nanny in Canada, which sounded like a good opportunity to explore another culture and save some money for her future. On April 18, 1998, she arrived at Terminal 3 in the Pearson International Airport in Toronto. She was whisked away by her employers, stripped of her identification, and forced to work as a sex slave in Toronto for the following three months. On August 18, 1998, she miraculously escaped her captors. |
| | Years later, Timea wrote her memoirs about her difficult journey into the underbelly of the sex slavery trade to inspire others to rise above victimization and lead joyful and purposeful lives in spite of difficult circumstances. Timea is now an educator, trainer, and advocate. She is the founder of Walk With Me, an Ontario-based organization helping human trafficking victims across Canada. Timea educates and trains many police agencies. Walk With Me also undertakes to speak regularly with government officials and the media. As a result of her bravery, Timea has been given awards by Crime Stoppers York Region, the Royal Canadian Mounted Police Human Trafficking Coordination Centre, and a National Heroes award for her outstanding advocacy and work around human trafficking. |
| | http://www.walk-with-me.org/ |
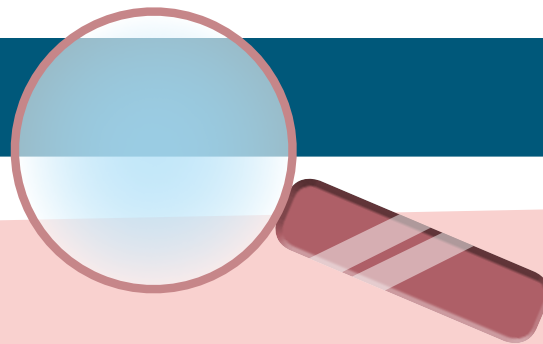
# Glossary

**Abolition:**

The campaign to bring the slave trade and the practice of slavery to an end by making it illegal. The first abolitionist legislation was passed in Britain in 1807.

**Abolitionist:**

A person who supports the abolition of slavery.

**Bonded labour (or debt bondage):**

The most common form of slavery in the world today, affecting millions of people around the world. "People become bonded labourers by taking or being tricked into taking a loan for as little as the cost of medicine for a sick child. To repay the debt, many are forced to work long hours, seven days a week, up to 365 days a year. They receive basic food and shelter as 'payment' for their work, but may never pay off the loan, which can be passed down for generations." (Harees, 2012)

**Boycott:**

"A campaign where people join together and refuse to deal with a person, organization, or country, usually to express disapproval or force an acceptance of terms." (USI, 2011)

**Chattel slavery:**

"Chattel slavery is the only type of slavery where an individual is considered the legal property of another. It exists today primarily in Mauritania and other parts of Northern Africa (Slavery is technically illegal in these areas, but law enforcement there often returns escaped slaves to their slave holders based on the asserted ownership, just as if the practice was legal.) This is the type of slavery that existed in the antebellum United States." (HTS, 2016.)

**Child domestic worker:**

Persons under 18 years of age who work in other people's households (and sometimes their own) doing domestic chores, caring for children, running errands, and helping their employers run small businesses. Child domestic workers include those who "live in" and those who live separately from their employers. A child domestic worker may be paid, unpaid, or receive "in-kind" remuneration such as food and shelter. Domestic work is widely perceived as a less dangerous type of employment than others, which is why it is considered more suitable for girls. However, child domestic workers suffer from widespread abuse and exploitation. (Hindman, 2014)

**Child labour:**

"Although children may legally engage in certain forms of work, forms of slavery or slavery-like practices continue to exist as manifestations of human trafficking, despite legal prohibitions and widespread condemnation. Some indicators of possible forced labor of a child include situations in which the child appears to be in the custody of a non-family member who requires the child to perform work that financially benefits someone outside the child's family and does not offer the child the option of leaving." (HTS, 2016)
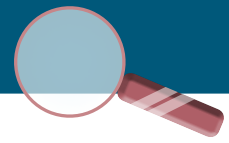
**Cocoa protocol:**
"Formally known as the Harkin-Engel Protocol, it is an agreement to eliminate slavery and the worst forms of child labour from cocoa production, with particular emphasis on West Africa. The protocol marked the first time in the 250-year history of the anti-slavery movement that a global industry took responsibility for the slavery in its supply chain. It brought together chocolate companies, several non-governmental organizations, organized labour, the International Labor Organization, Senator Harkin and Representative Engel, and the governments of the Ivory Coast and Ghana." (Walk Free Foundation, 2014)

**Contract slavery:**
"A means of trafficking in which a worker is deceived through the use of a false employment contract. Traffickers create contracts to lure individuals with promises of employment. However, upon arrival at the workplace, they are forced to work for no pay and cannot escape. The false contracts are used to avoid criminal charges or to prove that a "debt" is owed to the slaveholder." (HTS, 2016)

**Dalit:**
"A term used to describe people who do not belong to one of the four major Hindu castes in south Asian societies, primarily in India. Also known as "untouchables," Scheduled Castes and Harijans, the Dalits are the poorest people on the subcontinent and heavily discriminated against, making them exceptionally vulnerable to slavery." (Humaness.org, n.d.)

**Debt bondage (or bonded labour) slavery:**
"The most common method of enslavement in the world today, accounting for nearly 20 million of the world's slaves. It begins when a person accepts a loan from a moneylender, often in order to purchase basic necessities such as food or medicine. The person (and often his or her family) is held as collateral against the loan. Because they are collateral, their work does not repay the debt but "belongs" to the money lender. Unable to earn money independently, the family is unable to repay the illegal debt and it is passed down from generation to generation, creating hereditary enslavement. This system is well entrenched in South Asia and can trap entire families in slavery for illegal debts as small as $40." (Humaness. org, n.d.)

**Diaspora:**
"The spreading out of any group of people, forcibly or voluntarily, away from their homeland across a large area or around the world (it was originally used to describe the Jewish dispersal); also refers to the expatriate population as a distinct group." (USI, 2011)

**Early and forced marriage:**
Affects women and girls (and sometimes men and boys) who are married without choice and are forced into lives of servitude often accompanied by physical violence.

**Emancipation:**
Being set free, or granted rights equal to others who already enjoy them; the freeing of slaves from slavery
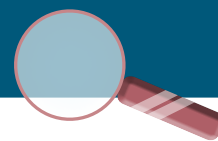
**Enslavement:**
To make a person a slave and to hold him or her in captivity.

**Equity:**
Fairness among people as it relates to their various interactions.

**Fair-trade:**
A system whereby communities join together to produce goods for sale that make the community richer and stronger as a whole, ensuring fair prices and that workers' human rights and the environment are protected over time. (USI, 2011)

**Feminist:**
A person of either gender who supports political, economic, and social equality between men and women.

**Forced labour:**
When people are recruited by individuals or groups and illegally forced to work.

**Global citizens:**
"Citizens of Earth who share in a collective responsibility for taking care of each other and our common environment." (USI, 2011)

**Human trafficking:**
"When an individual or individuals recruit, transport, transfer, harbor, or receive people by means of deception, fraud, coercion, abuse of power, payment to others in control of the victim, threats of force, use of force or abduction for the purpose of sexual exploitation, forced labour/services, removal of organs, servitude, slavery, or practices similar to slavery. It is a modern-day slave trade. The term human trafficking often has a specific legal definition based on the laws of countries or states or the conventions of international organizations, and those official definitions differ slightly from place to place." (Walk Free Foundation, 2014)

**Migrant labour:**
"Work done by people who travel from place to place for employment. Migrant labourers today are commonly immigrants, sometimes illegal, and often exploited by their employer. Most migrant labour is in agriculture, and the workers move around the country to harvest crops during different growing seasons. They are usually paid little for their work, sometimes crossing the line into slavery when they are paid nothing and unable to leave." (Humaness.org, n.d.)

**Non-governmental organization (NGO):**
A not-for-profit organization that is not part of any state or interstate agency.

**Restavecs:**
Children in Haiti who are given or sold by their parents into domestic work for another family. The children are promised an education, training, and care, but many become slaves for the family they live with, are abused, and forced to work.

**Sex industry:**
The exchange of sexual acts, performances, or images for money.
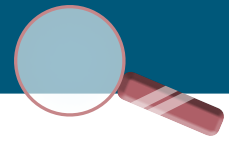
**Slave:**

"Slaves are forced to work through mental or physical threat, controlled by an 'employer,' usually through mental or physical abuse or threatened abuse, dehumanized, treated as a commodity, or bought and sold as 'property.' They are often physically constrained or have restrictions placed on their freedom of movement." (Puma, 2015)

**Slavers:**

People who earn a living by capturing, trading, and transporting people to be used as slaves.

**Slavery by descent:**

Where people are either born into slavery or are forced within their society to become a slave.

**Transatlantic slave trade:**

The kidnapping, transport across the Atlantic Ocean, and sale of African people as slaves.

**Treaty:**

A treaty is a legally binding agreement between two or more states.

**Triangle trade:**

"The name often given to the transatlantic slave trade. It describes the three sides to the route the slave ships took from Europe to West Africa, then to the Caribbean and the Americas, and finally back to Europe. The routes are known as the Outward Passage, the Middle Passage, and the return or homeward passage." (Lopez, 2012)

**Women's movement:**

A political movement where women sought/seek to gain political, economic, and social rights equal to men in society.

**Worst forms of child labour:**

A term used in the International Labor Organization's (ILO) Convention No. 182 that refers to child labour involving slavery, trafficking, forced labour, child soldiery, commercial sexual exploitation of children, children used for illegal activities, or other work that harms children's health and morals.

## Resources

### Articles

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www.antislavery.org/includes/documents/cm_docs/2009/1/18072007.pdf

Weissbrodt, David. "Abolishing slavery and its contemporary forms." 2002.
www.antislavery.org/includes/documents/cm_docs/2009/w/weissbrodt_report_
final_edition_2003.pdf

### Online

**Alliance against Modern Slavery**
www.allianceagainstmodernslavery.org

**Anti-Slavery International**
www.antislavery.org/english/

**Canada Fights Human Trafficking**
www.canadafightshumantrafficking.com/

**End Modern-Day Slavery**
www.endmoderndayslavery.ca

**Free the Slaves**
www.freetheslaves.net

**Free the Children**
www.freethechildren.com

**Human Rights Watch**
www.hrw.org

**International Justice Mission**
http://www.ijm.ca/

**International Labor Organization**
http://www.ilo.org

**RCMP**
www.rcmp-grc.gc.ca/qc/pub/traite-trafficking/traite-trafficking-eng.htm

**Save the Children**
www.savethechildren.ca

**Slavery Today**
http://old.antislavery.org/breakingthesilence/main/09/teacher_activities.shtml

**The Forced Marriage Project**
www.forcedmarriages.ca

**Understanding Slavery**
www.understandingslavery.com/

**UNESCO Slave Route Project**
www.unesco.org/culture/slaveroute/

**Voyages: The Transatlantic Slave Trade Database**
(highly recommended data set with information on 35,000 slaving voyages)
www.slavevoyages.org/tast/index.faces

**1807 Commemorated**
www.history.ac.uk/1807commemorated/

**2010 Trafficking in Persons Report**
www.state.gov/documents/organization/142979.pdf

## Multimedia

**Documentary: Amazing Grace**
www.amazinggracemovie.com/

**Documentary: Modern Slavery 101**
www.freetheslaves.net/101

**Documentary: Slavery, Past and Present**
http://allianceagainstmodernslavery.org/tedvideo

**Documentary:The Dark Side of Chocolate**
www.thedarksideofchocolate.org/

**Documentary: The Silent Revolution**
www.freetheslaves.net/Page.aspx?pid=319

**Documentary: Coolies: How Britain Reinvented Slavery**
http://documentarystorm.com/coolies-how- britain-reinvented-slavery/

**Documentary: Child Slavery**
http://documentarystorm.com/child-slavery/

**Documentary: Lindsay Lohan's Indian Journey**
> www.youtube.com/watch?v=qC6f6BEIeHM&feature=related

**Atlantic Slave Trade Map, 1500–1900**
> "The Atlantic slave trade, also known as the transatlantic slave trade, was the trading, primarily of African people, to the colonies of the New World that occurred in and around the Atlantic Ocean."
> www.zonu.com/fullsize-en/2010-01-05-11626/Atlantic-slave-trade-1500-1900.html

**Products of Slavery**
> "There are at least 12.3 million people, both children and adults, working in forced labour, a modern form of slavery. The U.S. Department of Labor's study found a high incidence of forced labour being used in 29 countries to produce 50 products. Anti-Slavery International aims to raise awareness of the problem of forced labour, to encourage consumers to ask questions and to call upon companies to join efforts towards its eradication."
> www.antislavery.org/includes/documents/cm_docs/2009/p/1_products_of_slavery.pdf

**Slavery Today**
> Ready-to-Use Lesson Plans and Activities
> "This site aims to help teachers and educators to 'Break the Silence' that continues to surround the story of the enslavement of Africa that began over 500 years ago. It is designed to provide teachers with a variety of resources and ideas about how to teach the subject holistically, accurately and truthfully."
> http://old.antislavery.org/breakingthesilence/main/09/teacher_activities.shtml

**Five Thousand Years of Slavery Teacher's Guide**
> "Five Thousand Years of Slavery tells the story of these slaves and others, from ancient times to the present day. It brings history to life with the firsthand accounts of slaves, the courageous tales of abolitionists, and the sordid stories of slave owners. And it suggests ways to fight slavery in the world today."
> www.allianceagainstmodernslavery.org/sites/default/files/Five%20Thousand%20Years%20of%20Slavery%20Teacher's%20Guide.pdf

**Understanding Slavery Initiative**

"The Understanding Slavery initiative (USI) is a national learning project which supports the teaching and learning of transatlantic slavery and its legacies using museum and heritage collections."
www.understandingslavery.com/

**Free the Slaves**

"At the core of our approach is a simple, elegant idea—slavery is defeated when at-risk communities acquire the knowledge, tools and resources they need to overcome vulnerability and secure freedom."
www.freetheslaves.net

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Bales, Kevin. *Ending Slavery: How We Free Today's Slaves*. Berkeley, CA: University of California Press, 2008.

___. *Disposable People: New Slavery in the Global Economy*. Berkeley, CA: University of California Press, 2004.

Bales, Kevin, and Becky Cornell. *Groundwork Guide: Slavery Today*. Toronto, ON: Groundwood Books, 2008.

Blackman, Malorie. *Unheard Voices*. London, UK: Corgi Books, 2007.

Blair, Cherie. *Stop the Traffik: People Shouldn't be Bought & Sold*. London, UK: Lion, UK, 2009.

Gann, Marjorie, and Janet Willen. *Five Thousand Years of Slavery*. Toronto, ON: Tundra Books, 2011.

Hochschild, Adam. *Bury the Chains: Prophets and Rebels in the Fight to Free an Empire's Slaves*. New York, NY: Mariner Books, 2006.

Jal, Emmanuel. *War Child: A Child Soldier's Story*. New York, NY: St. Martin's Press, 2009.

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Hindman, Hugh. *The World of Child Labor: An Historical and Regional Survey*. Abingdon, UK: Routledge, 2014.

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Lopez, Jessica. *Triangular Slave Trade*. September 9, 2012. Available online at https://prezi.com/aqai_pa7vp4l/triangular-slave-trade/

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Perrin, Benjamin. *Invisible Chains. Canada's Underground World of Human Trafficking*. Toronto, ON: Viking Canada, 2010.

Puma, Ara. *Slavery Nowadays*. June 16, 2015. Available online at
https://prezi.com/us6xc6qyiib_/slavory-now-at-days/

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Skinner, Benjamin E. *A Crime So Monstrous: Face-to-Face with Modern-Day Slavery*. New York, NY: Free Press, 2009.

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http://www.understandingslavery.com/index.php?option=com_content&view=category&id=139:glossary-of-terms&Itemid=204&layout=default

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WuDunn, Sheryl, and Nicholas D. Kristof. *Half the Sky: Turning Oppression into Opportunity for Women World Wide*. New York, NY: Vintage, 2010.

# *Oppression and Genocide*

# Oppression and Genocide

## Introduction

When most people think of oppression, they think of distant places and times, yet oppressive conditions still exist, even in modern liberal and democratic societies. Oppression is not always planned but can be woven into the social, economic, and cultural fabric of a society. In fact, most people experience one or more forms of oppression at some point in their lives. While small acts of oppression may seem insignificant, oppression can lead to large-scale, devastating impacts such as wars and genocides. Genocides and other mass murders killed more people in the 20th century than all the wars combined. After the Holocaust, the international community promised the world would "never again" stand by and allow genocide to occur. Although the sentiment of "never again" continues to be repeated, there have been many genocides committed since the Holocaust. Many people attribute the extent and severity of genocide to the inaction of outside governments and people. Genocide is a complicated and political word to apply to many situations, since its use implies a number of legal and moral obligations. In addition, genocides are often defined long after the violent acts have taken place, thereby complicating the ability for outsiders to intervene in the genocide.

While intervention in potential genocides can be a complex issue, prevention of genocides is possible. Understanding how oppression affects us (either as members of oppressed groups or of groups that have various privileges), how oppression can escalate with other causal factors to lead to mass atrocities and genocides, and what responsibilities we have to prevent or permit the occurrence of oppression and genocide, enables us to think and act like global citizens. Studying and understanding these dynamics can help us to truly comprehend the impact (whether positive or negative) that each of us can make on the world.
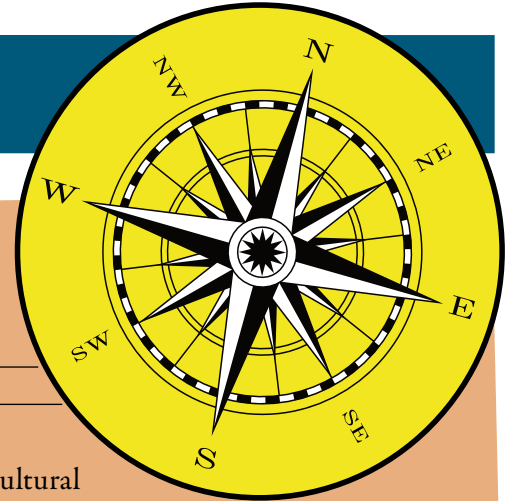
## Exploring the Issues

### Oppression

Oppression can occur in many forms. Some of these include exploitation (e.g., child labour), marginalization, powerlessness, cultural dominance or violence (e.g., police brutality against certain ethnic groups), racism (e.g., Apartheid in South Africa), colourism, classism (e.g., "untouchables" in India), ableism (discrimination against those with disabilities), lookism, sizeism, ageism, nativism, colonialism, sexism (e.g., women's suffrage), heterosexism, and cisgenderism (discrimination against transgender people). Each of these forms of oppression are related to and reinforced by each other.

Oppression can persist through an individual, an institution, or a culture, and each of these can occur consciously or unconsciously. People often do not realize they are oppressing others (e.g., through laughing at racist or homophobic jokes or instructing sales personnel to watch African Americans carefully in the store for fear of theft), and are often even less aware of their own privilege as compared to those who are oppressed. Oppression is often linked to other measures of living standards such as life expectancy, employment, and income. For example, there is a correlation between poverty and race. Understanding the various forms and effects of oppression exemplifies the importance of challenging social arrangements that discriminate against some or privilege a select few over many.

What forms of oppression are occurring in your country? ...your community? ...your school?

What are the social, economic, and cultural structures that create or perpetuate oppression and genocide?
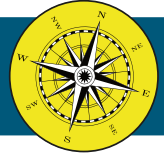
### Genocide

The legal definition of genocide is outlined in international law in *The Convention on the Prevention and Punishment of Genocide* and was adopted by the United Nations General Assembly on December 9th, 1948. It is important to note that the definition involves two components: the physical commitment of violent acts *and* the intention of large-scale destruction. The article reads as follows:

#### UN Definition of Genocide

Article II: In the present Convention, genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such:

(a) Killing members of the group
(b) Causing serious bodily or mental harm to members of the group
(c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part
(d) Imposing measures intended to prevent births within the group
(e) Forcibly transferring children of the group to another group

Common themes in genocide studies include the following: the history of genocide; the factors that contribute to it; the processes by which genocide unfolds; the role of different actors within these processes, including those of perpetrators, victims, witnesses, bystanders, rescuers, and resisters; the role of external third parties who may choose to intervene, permit, prevent, facilitate, or ignore genocide; and the debate over the definition of the term itself (Yale, Genocide Studies Program).

Understanding genocide often involves exploring the causal factors of it and understanding how or if it could have been prevented or minimized. It is important to investigate the context and dynamics that lead to genocide (e.g., political considerations, economic difficulties, local history, and context, etc.). Could causal conditions have been deflected or minimized? Explore the different mechanisms for preventing genocide, including early warning indicators, diplomacy, international justice, legal infrastructures, the responsibility to protect, negotiation and mediation, and civil society. What are some resistance movements or policy measures that support the prevention of genocide (e.g., the Universal Declaration of Human Rights)?

Comparing genocides is one means of exploring causal and preventative factors. What are the commonalities between them? Why has genocide arisen in some instances but not in others? While many have used a comparative analysis as a means of predicting genocide occurrences and their impacts, most acknowledge that each case of genocide (and the associated pain and suffering) is unique.

As important as it is to understand what was done to create genocide and mass atrocities, it is equally as important to learn about what was not done and why action was or was not taken. How did international and regional authorities respond? What is the role of non-governmental organizations? When is diplomacy, negotiation, isolation, or military involvement appropriate or effective?

What qualifies as genocide is also highly contested. For example, the Canadian government only officially recognizes five genocides: the Holocaust, the Holodomor, the Armenian genocide, and the genocides in Rwanda and the Bosnian town of Srebrenica. Other countries have different opinions about what should or should not be considered genocide, and individual opinions provide an even greater variance. Canada considers the Ukrainian famine (Holodomor) to be genocide, while many others do not. The Turkish government still refuses to recognize the Armenian genocide. Teachers may want to include a discussion of understudied genocides (e.g., Bangladesh), near-genocides (e.g., Ivory Coast), contested genocides (e.g., Argentina), and mass violence against civilians within the context of other conflicts (e.g., Iraq).

## Essential Questions

Inquiry questions related to oppression and genocide issues may include the following:

- What constitutes genocide?
- How can genocide be prevented?
- Is armed intervention necessary to prevent genocide?
- Are crimes by different categories of people less likely to be viewed as crimes, to result in an arrest, to be brought to trial, to result in a conviction, to lead to punishment or imprisonment or the death penalty, and so on?
- How are oppression and genocide related?
- Why or how is oppression linked to living conditions such as poverty, health, employment, or income? How does this relate to stereotyping people/groups?
- Is oppression necessary to maintain society as it currently exists?
- What would our classroom/school/community/country/world look like without oppression?
- While we may recognize that someone is disadvantaged, we are less likely to recognize our own privilege. Is one person's over-privilege related to another's disadvantage (i.e., men's versus women's privilege)?
- How is genocide experienced differently by men, women, boys, and girls?
- What are the consequences of labelling something "genocide," and who should be able to decide whether something is or is not considered to be genocide?
- In a number of cases of oppression and genocide worldwide, the scale and scope of the atrocity have been attributed to the inaction of outside governments and other people (e.g., Rwandan genocide, Cambodian genocide, etc.).
- What responsibility do governments and other people have to stop oppression and genocide occurring in other countries?
- At what point should governments be allowed to intervene in other countries on humanitarian grounds? Who should enforce this standard?
- What political, economic, or social reasons might a government or others have for not getting involved in preventing oppression and genocide in other countries?
- What role does the media play in the definition of atrocities?
- The Canadian government doesn't currently consider the colonization of Indigenous peoples in Canada to be genocide, while many other people do. What reasoning do these groups have to support their positions? Why is this issue so contested?

### Did You Know?

The term *oppression* stems from "opprimere," which is Latin for "pressed down." *Genocide* was coined by Polish writer and attorney Raphael Lemkin in the early 1940s by combining the Greek word *genos* (race) with the Latin word *cide* (killing).

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Bill Gates once spoke to an audience in Saudi Arabia where women made up roughly one-fifth of the audience. During his presentation, the women were not only separated but also partitioned off from the men in the room. A member of the audience asked if it was realistic that Saudi Arabia would accomplish its goal of being one of the top-10 countries in the world in technology by 2010. Gates replied, "Well, if you're not fully utilizing half the talent in the country, you're not going to get too close to the top ten."

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Some scholars argue that Canada has its own history of oppression and genocide. They point to residential schools and continuing violence against First Nations peoples, especially women.

- Indigenous children were sent to schools off of their reservations where they were made to speak only English, and prevented from and punished for speaking their own language.

- In Canada, Aboriginal peoples, recent immigrants and racialized communities, and persons with disabilities continue to face higher levels of poverty than others and are at higher risk of long-term poverty.

- Indigenous people are more likely to live in houses requiring major repairs. Nearly half (45%) of First Nations people living on reserve in 2006 lived in homes that they identified as needing major repairs.

- In 2006, one-third (33%) of Indigenous adults aged 25 to 54 had less than a high school education compared to nearly 13% of the non-Indigenous population—a difference of 20 percentage points.

- Indigenous people are less likely than non-Indigenous people to be employed.

- The median total income of the Indigenous population aged 25 to 54 in 2005 was just over $22,000, compared to over $33,000 for the non-Indigenous population in the same age group. The median income for males is more than for females, regardless of Indigenous identity.

- Indigenous people make up 4 percent of Canada's population but 23 percent of inmates in federal jails.

Similar stats exist for visible minorities in Canada[*]:

- Poverty rates for racialized families are three times higher than non-racialized families.

- Racialized Canadians earn only 81.4 cents for every dollar paid to non-racialized Canadians.

- Racialized women earn 55.6% of the income of non-racialized men.

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[*]  Statistics and information are from *Canada's Colour Coded Labour Market*, Canadian Centre for Policy Alternatives, 2011; *Poverty Trends Score Card Canada*, 2012; Statistics Canada, 2015.

**DYK?**

## Examples of Historic Oppression and Genocide

| Time | Description |
| --- | --- |
| To present day | The Amazon: various ethnic groups and miners, loggers, oil extractors, and poachers |
| 2003 | Darfur genocide: Government of Sudan and Darfur rebels |
| 1994 | Rwandan genocide: Between the Hutu and Tutsi ethnic groups |
| 1990s | Bosnia and Herzegovina genocide: Bosnian civilians and Serbian militias |
| 1980s | Guatemala: Military dictatorship and Indigenous Mayans |
| 1975–1999 | East Timor: Indonesian Military Dictatorship and East Timorese |
| 1975–1979 | Cambodian genocide: Khmer Rouge and racial, social, and political groups |
| 1971 | Bangladesh genocide: Pakistani army |
| 1965–66 | Indonesian genocide: communists vs. anti-communists |
| 1933–1945 | Holocaust: Nazi Germany and Jews |
| 1932–1933 | Ukrainian famine: Stalin and Ukrainians |
| 1915 | Armenian genocide: Ottoman Turkish government and the Armenians |

## Thought-Provoking Quotations

"Many thought . . . that the horrors of the
Second World War—the camps, the cruelty,
the exterminations, the Holocaust—could
never happen again. And yet they have in Cambodia, in Bosnia and Herzegovina, in Rwanda.
Our time—this decade even—has shown us that man's capacity for evil knows no limits.
Genocide . . . is now a word of our time, too, a heinous reality that calls for a historic
response."
  – United Nations Secretary-General Kofi Annan (UN, 1998)

"Power tends to corrupt, and absolute power corrupts absolutely."
  – Lord Acton

"Those who make peaceful revolution impossible will make violent revolution inevitable."
  – John F. Kennedy

"A person stands a better chance of being tried and judged for killing one human being than
for killing 100,000."
  – José Ayala Lasso

"In the prospect of an international criminal court lies the promise of universal justice. That
is the simple and soaring hope of this vision. We are close to its realization. We will do our
part to see it through till the end. We ask you . . . to do yours in our struggle to ensure that no
ruler, no State, no junta and no army anywhere can abuse human rights with impunity. Only
then will the innocents of distant wars and conflicts know that they, too, may sleep under
the cover of justice; that they, too, have rights, and that those who violate those rights will be
punished."
  – United Nations Secretary-General Kofi Annan (UN, 1998–1999)

"We owe respect to the living; to the dead we owe only truth."
    – Voltaire

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"… I know that we will be the sufferers if we let great wrongs occur without exerting ourselves to correct them."
    – Eleanor Roosevelt

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"This world is ill divided. Them that work the hardest are the least provided."
    – Mary Brookbank

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"I was taught to see racism only in individual acts of meanness, not in invisible systems conferring dominance on my group."
    – Peggy McIntosh

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"If you don't at least speak out clearly, you are participating in the genocide. … If you just shut up when you see what you see—morally and ethically you can't shut up. It's a responsibility to talk."
    – Philippe Gaillard

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## Making a Difference

In every case of genocide, there have been individuals who have spoken out against oppression. The magnitude of the event and seeming inaction among the world community and its policy-makers can be daunting, but actions of any size have potential impacts.
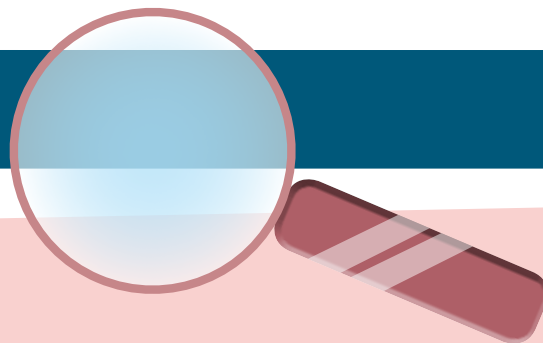
| Name | How they make a difference |
|---|---|
| **Cardinal Archbishop Raul Silva Henriquez** | He started a group called the "Committee for Cooperation for Peace" to help tens of thousands of people in Chile escape persecution by Augusto Pinochet's regime. He also offered financial assistance, legal aid, and sanctuary for those targeted by the regime. |
| **John Rabe** | This German member of the Nazi Party stopped atrocities of the Japanese Army during the Nanking Occupation. He saved over 200,000 Chinese by helping to establish a safety zone. |
| **Louis Riel** | He resisted European influence and sought to preserve Métis rights and cultures in Manitoba. |
| **Malala Yousafzai** | A Pakistani advocate for female education, Malala was shot in the head for attending school. She is now the youngest recipient of the Nobel Peace Prize (at age 17) and was named one of "The 100 Most Influential People in the World" in 2013 by *Time Magazine*. |
| **Nelson Mandela** | South Africa's first black president, Mandela focused on dismantling the legacy of Apartheid through tackling institutionalized racism, poverty, and inequality, and fostering racial reconciliation. He also created the South African Truth and Reconciliation Commission to investigate past human rights abuses. |
| **Oskar Schindler** | A German businessman and former member of the Nazi Party, he saved over 1,200 Jews from the Holocaust by employing them in his factory (later inspiring the book *Schindler's Ark* and the Oscar-winning film *Schindler's List*). |
| **Rainer Schubert** | Schubert smuggled East Germans out of the communist GDR across the Berlin Wall (two of which escaped while hiding under a live tiger!). He spent nine years in prison (two in solitary confinement) and later promoted the need for East Berlin trials. |
| **Raphael Lemkin** | A Polish lawyer who coined the term *genocide* and advanced the passage of the UN Genocide Convention, he has received a number of awards for his work in international law and the prevention of war crimes. |
| **Rigoberta Menchú** | An Indigenous Guatemalan woman who has dedicated her life to promoting Indigenous rights. |

| Name | How they make a difference |
|------|---------------------------|
| **Roméo Dallaire** | Served as Force Commander for the United Nations peacekeeping force during the Rwanda Genocide. Dallaire is the founder of The Roméo Dallaire Child Soldiers Initiative and is a Senior Fellow at the Montreal Institute for Genocide and Human Rights Studies (MIGS) and Co-Director of the Will to Intervene Project, which strives to prevent mass atrocities. |
| **Viola Desmond** | A black Nova Scotia business woman who challenged racial segregation in Halifax by refusing to leave the "whites-only" area of a theatre, helping to prompt the modern civil rights movement in Canada. |

Many heroes of oppression and genocide are just ordinary people choosing to do the right thing. There are many examples. Search "Nobel Peace Prize winners," "Pearson Medal of Peace winners," "oppression allies," or "heroes of genocide."

## Glossary

**Ally:**
"A person who is a member of an advantaged social group who takes a stand against oppression, works to eliminate oppressive attitudes and beliefs in themselves and their communities, and works to interrogate and understand their privilege." (Suffolk)

**Crimes against Humanity:**
"A widespread or systematic attack directed against a civilian population. Such crimes include the murder of political or social groups that are unprotected by the 1948 United Nations Genocide Convention." (Yale)

**Discrimination:**
"Discrimination is an action that is taken to limit the freedoms and activities of others; it happens on individual, systemic, institutional, and societal levels. Discrimination is the active manifestation of a prejudiced or biased state of mind." (Dragonfly)

**Ethnocentrism:**
"An inclination to view events from the perspective of one's own culture, with a coinciding inclination to diminish other groups and regard them as inferior (e.g., the idea that European peoples "civilized" the West, without regard for the perspective of the Indigenous population)." (Dragonfly)

**Genocide:**
"Acts committed with intent to destroy, in whole or in part, a national, ethnical, racial, or religious group." (UN, 1948)

**Genocidal Continuum:**
The less dramatic, permitted (and often institutionally supported), everyday acts of violence that make participation (under other conditions) in genocidal acts possible (Scheper-Hughes).
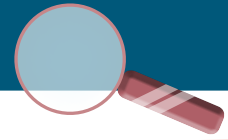
**Human Rights:**
These are "rights inherent to all human beings, whatever our nationality, place of residence, sex, national or ethnic origin, colour, religion, language, or any other status. We are all equally entitled to our human rights without discrimination. These rights are all interrelated, interdependent, and indivisible." (UNHROHC)

**Internalized Oppression:**
This is the "belief of a person or group that the stereotypes and assumptions society holds about them are true. Internalized oppression can involve self-hatred and shame about one's own identity or ethno-cultural group." (Dragonfly)

**Institutional/Systemic Discrimination:**
"Actions by institutions and systems that are constructed to keep dominant groups in power and shut out marginalized groups. Systems and institutions control social, cultural, religious, or moral traditions and ideas that reinforce the power of the dominant group at the expense of other groups." (Dragonfly)

**Marginalized:**
"The status of groups that do not have full and equal access to the cultural, economic, political, and social institutions of society and are therefore less powerful." (Dragonfly)

**Oppression:**
"The systemic and pervasive nature of social inequality woven throughout social institutions as well as embedded within individual consciousness. Oppression fuses institutional and systemic discrimination, personal bias, bigotry, and social prejudice in a complex web of relationships and structures that saturate most aspects of life in our society." (Suffolk)

**Politicide:**
"The mass killing of individuals based upon their identification (or perceived identification) with a political group or view." (Butcher et al.)

**Prejudice:**
"A state of mind that casts those different from oneself in an inferior light, without actual evidence. It is a thought process." (Dragonfly)

**Privilege:**
"A group of unearned cultural, legal, social, and institutional rights extended to a group based on their social group membership. Individuals with privilege are considered to be the normative group, leaving those without access to this privilege invisible, unnatural, deviant, or just plain wrong. Most of the time, these privileges are automatic and most individuals in the privileged group are unaware of them." (Suffolk)

**Stereotypes:**
"A false or generalized idea or conception of a group of people that results in an unconscious or conscious labelling or categorization of each member of that group, without regard for individual differences. Dominant groups use stereotypes to confirm the supposed inferiority of marginalized peoples." (Dragonfly)

**Truth Commissions:**
"These are commissions of inquiry tasked with the investigation of patterns of past crimes. Truth commissions offer a prospect of facilitating national and personal reconciliation while potentially complementing efforts to promote justice. However, they might also serve as a post-conflict battleground of narrative construction and unwanted compromise." (Yale)

**War Crimes:**
Violations of the laws and customs applicable in armed conflict that are committed as part of a plan or policy or on a large-scale, including, but not limited to, murder, torture, taking of hostages, pillaging, rape, or the conscription of children under 15 years of age. (ICC)

**Xenophobia:**
"The fear and hatred of that which is perceived to be foreign or strange." (Suffolk)

## Resources

### Journals

*Journal of Genocide Research.* A quarterly peer-reviewed academic journal published by Routledge that covers studies of genocide. www.tandfonline.com/toc/cjgr20/current

*Genocide Studies and Prevention: An International Journal (GSP).* The "official journal of the International Association of Genocide Scholars (IAGS), a global, interdisciplinary, non-partisan organization that seeks to further research and teaching about the nature, causes, and consequences of genocide, and advance policy studies on prevention of genocide." http://scholarcommons.usf.edu/gsp/

*Holocaust and Genocide Studies. Holocaust and Genocide Studies* is a peer-reviewed international journal featuring research articles, interpretive essays, and book reviews addressing the issue of the Holocaust and other genocides. It has been published by Oxford University Press on behalf of the United States Holocaust Memorial Museum since 1987. https://academic.oup.com/hgs/pages/About

### Websites

**Canadian Museum for Human Rights.** This resource includes a school programs and resources to help teachers address human rights issues in the classroom or within the museum itself. https://humanrights.ca/learn

**Genocide Watch: The International Alliance to End Genocide.** "Genocide Watch exists to predict, prevent, stop, and punish genocide and other forms of mass murder. We seek to raise awareness and influence public policy concerning potential and actual genocide. Our purpose is to build an international movement to prevent and stop genocide." www.genocidewatch.org/home.html

**Human Rights Watch. Human Rights Watch (HRW)** is an international non-governmental organization (NGO) that advocates for human rights. www.hrw.org

**The Universal Declaration of Human Rights (UDHR).** A declaration adopted by the United Nations General Assembly on December 10, 1948, in response to the human rights abuses that occurred during the First and Second World Wars. http://www.un.org/en/universal-declaration-human-rights/

**The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).** Adopted by the UN General Assembly on September 13, 2007, by a majority of 144 nations in favour and four opposed, including Canada. In May 2016, Canada officially removed its objector status. www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

**University of Manitoba, National Centre for Truth and Reconciliation (NCTR).** The NCTR is the permanent home for all statements, documents, and other materials gathered by the Truth and Reconciliation Commission of Canada (TRC) regarding the history and legacy of Canada's residential schools system. http://umanitoba.ca/nctr/

**Yale University, Genocide Studies Program.** Yale University's Genocide Studies Program focuses on the phenomenon of genocide and maintains research projects on catastrophes such as the Nazi Holocaust and colonial and Indigenous genocides. http://gsp.yale.edu/

### Teaching Resources

**Discrimination and Stereotypes Lesson Plans.** Advocates for Youth, a U.S.-based organization that advocates for young people's rights to sexual health information, services, and resources, created these lesson plans for students aged 13¬–18 years in order to help teachers address discrimination and stereotyping.

**Teaching Note: Teaching about Oppression through Jenga: A Game-Based Learning Example for Social Work Educators.** This resource reviews the relevant literature on institutional game-based learning and offers readers an original game-based learning exercise adapted from the popular game Jenga that they can use as a tool for teaching about institutional oppression.

**United States Holocaust Memorial Museum. Guidelines for Teaching about Genocide.** This site provides teachers with guidelines, essential topics, common questions, lesson plans, and additional teaching materials for teaching about genocide. https://www.ushmm.org/educators/teaching-about-the-holocaust/teaching-about-genocide

### Multimedia

**The Fortunoff Video Archive for Holocaust Testimonies at Yale University.** In 1979, a group of people in New Haven, Connecticut founded the Holocaust Survivors Film Project, which was an effort to videotape the testimonies of Holocaust survivors and witnesses. In 1981, their work was entrusted to Yale University. The Fortunoff Archive currently includes more than 4,400 testimonies comprising more than 10,000 hours. http://web.library.yale.edu/testimonies

**Human Rights Watch.** This site includes videos and photos that are regularly updated. Human Rights Watch is a non-profit, non-governmental human rights organization that publishes reports and briefings on human rights conditions around the world and meets with governments, NGOs, financial institutions, the United Nations, and corporations to press for change and to promote human rights and justice around the world. https://www.hrw.org/video-photos

**USC Shoah Foundation.** Founded by Steven Spielberg in 1994, the Shoah Foundation has conducted more than 55,000 audio-visual interviews with survivors and witnesses of the Holocaust and other genocides. Its archive, which is available online and is searchable by keywords, provides a resource for students to learn directly from the eyewitnesses of history. http://sfi.usc.edu

**Voices of Rwanda.** "Voices of Rwanda is dedicated to recording and preserving testimonies of Rwandans, and to ensuring that their stories inform the world about genocide and inspire a global sense of responsibility to prevent human rights atrocities." http://voicesofrwanda.org

### Films

*John Rabe (2009).* This film is about John Rabe, a German businessman and member of the Nazi Party, who helped to create a protective International Safety Zone in Nanking, China during its invasion by Japan. This helped to save more than 200,000 lives that would have otherwise been lost in the Nanking Massacre in late 1937 and early 1938. http://www.imdb.com/title/tt1124377/

*Schindler's List (1993).* Directed and co-produced by Steven Spielberg, this film is based on the novel *Schindler's Ark* by Thomas Keneally. It is about Oskar Schindler, a German businessman who saved the lives of more than 1000 people from the Holocaust by employing them in his factories during the Second World War. http://www.imdb.com/title/tt0108052/

**Filmography of Genocide and Crimes against Humanity.** Compiled by Adam Jones, Ph.D., this filmography is published by the International Association of Genocide Scholars, "a global, interdisciplinary, non-partisan organization that seeks to further research and teaching about the nature, causes, and consequences of genocide, and advance policy studies on genocide prevention." http://www.genocidescholars.org/resources/filmography

## Other Modes of Inquiry

Oppression and genocide can be linked to various other modes of inquiry. For example, how does the media help or hinder conflict resolution efforts during large-scale human atrocities? How do issues relating to the environment, poverty and wealth, gender politics, or Indigenous people relate to oppression? How does oppression and genocide affect peace and conflict, health, or human rights?

Similarly, other subject matter can be incorporated or related to these events. Connecting these issues with other topics and current events helps students relate to the issue while recognizing the broader, global contributions and impacts on these events.

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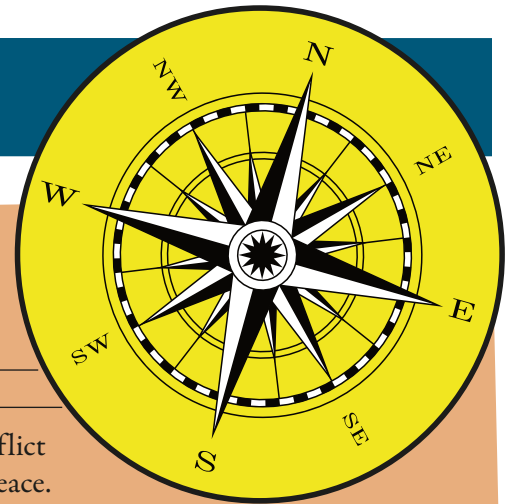
# Peace and Conflict

## Introduction

Over 80 percent of all humanitarian crises are the result of conflict. Conflict is an intrinsic and inevitable aspect of social change, but how we deal with this conflict determines the impacts and outcomes of change. Understanding how conflict can be managed, utilized, and transformed can help promote more peaceful resolutions and responses. But what is peace and how is it accomplished?

As peace is a hypothetical construct, it is often easiest to define what peace is not—that is, conflict. Conflict is, from the Latin, "to clash or engage in a fight," and occurs when two or more individuals or groups pursue mutually incompatible goals. In fact, peace and conflict can take different forms, occurring on a number of levels with a wide variety of causes and outcomes. Peace and conflict occur in various contexts, from the personal, family, school, and community levels to the international level. Peace and conflict studies often involve an exploration of the interconnections among such issues as poverty, violence and non-violence, individual and overall security, hunger, discrimination, human rights, war and justice, freedom, and the human community. The interdisciplinary nature of peace and conflict studies means that teachers have lots of options in deciding what to teach and many opportunities to link their lessons with other topics or areas of inquiry.
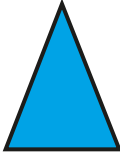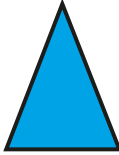
## Exploring the Issues

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### 1. Understanding Concepts of Peace and Conflict

Johan Galtung, one of the founders in the field of peace and conflict studies, proposed interrelated models of conflict, violence, and peace. Conflict is viewed as a dynamic process in which structure, attitudes, and behaviour are constantly changing and influencing one another. Direct violence is ended by changing conflict behaviour, structural violence is ended by removing structural contradictions and injustices, and cultural violence is ended by changing attitudes. These relate in turn to broader strategies of *peacekeeping*, *peace building*, and *peacemaking*.

Galtung defined *negative peace* as the absence of direct violence and *positive peace* as the absence of all three forms of violence (direct, structural, and cultural).

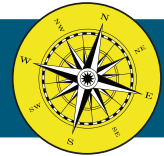**Galtung's Models of Conflict, Violence, and Peace**

| Conflict | Violence | Peace |
|---|---|---|
| Contradiction | Structural violence | Peacebuilding |
| Attitude          Behaviour | Cultural violence     Direct violence | Peacemaking     Peacekeeping |

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### 2. Preventing, Managing, and Resolving Conflict

It is important to remember that conflict is an inherent part of the human condition but that violent conflict can be prevented. There are a number of definitions and types of violence from the interpersonal to the global level (e.g., family violence, youth and gang violence, violence in the workplace, hate crimes, and war). Understanding the nature of violence may include discussion of social oppression, discrimination, and marginalization. Managing and resolving or transforming conflict can prevent the occurrence of violence.

There are many aspects to conflict escalation and de-escalation. Lessons may include the following:

- Stages of conflict (e.g., difference to reconciliation)
- Strategic responses and skills and processes used in response (e.g., problem solving, preventative peacekeeping, decentralization of power, etc.)

- Approaches to conflict (e.g., withdrawal, compromise, yielding, etc.)
- The differences among positions, interests, and needs (interests are often easier to resolve than positions)
- Third-party intervention (coercive versus non-coercive forms)
- Different forms of power
- Symmetrical versus asymmetrical conflicts (see Glossary section)
- Non-violent forms of resistance
- Contemporary and Indigenous systems for resolving conflict and peace building

### 3. Branches of Peace and Conflict Studies

Teachers may wish to focus in on one of the many branches of peace and conflict studies. Some of these include the following:

- Culture, peace, and conflict (e.g., the impact of cultural norms and world views on approaches to conflict management, ways in which cultural difference can become a source of conflict as well as a resource for peacemaking, for culturally sensitive approaches to conflict-resolution training and social change, and for localizing peace, etc.)
- Ethics of conflict resolution (e.g., ethics of conflict intervention)
- Gender, peace building, and conflict (e.g., the impact of conflict on women and children, the role of women in peace building, UN Resolution 1325, etc.)
- International peace and conflict (e.g., causes of conflict and approaches for peace)
- Media, peace, and conflict
- Peace education (e.g., how to promote peace in the classroom, how educators can serve as role models, etc.)

## Essential Questions

Inquiry questions related to peace and conflict issues may include the following:

- What elements should be present/absent in order for peace to occur?

- Are there different kinds of peace? Can you describe them?

- What effect does inner peace have on external circumstances?

- How does peace relate to conflict?

- Is conflict always negative? Can you think of an instance where conflict might be positive?

- What is the media's role in promoting war?

- Aside from the individuals/groups in conflict, who else is affected by conflict (e.g., innocent civilians in national armed conflicts, children in parental conflicts, etc.)? How are they affected (e.g., emotionally, physically, intellectually, etc.)?

- How do people of different ages or gender experience and/or deal with conflict differently?

- Should conflict resolution be different in different cultures?

- What are the current conflicts in your school? ...community? ...country? ...other countries? What are some ways these could be resolved/transformed?

- What are sustainable forms of peace? How can they be achieved? Who needs to be involved?

- It is estimated that 22 of the 34 countries furthest away from achieving the United Nation's Millennium Development Goals are affected by current or recent conflicts (United Nations Development Programme). Of the 20 poorest countries, 16 have recently experienced civil war, resulting in severe hunger and poverty. Why do you think this is? How does development relate to conflict? How does this help us understand current conflicts? What might this suggest about peace?

- Youth have an important role to play in peace and conflict. In contemporary armed conflicts, youth are often on the frontlines of combat and, after peace accords are signed, they are both potential threats to peace and significant peace-building resources (Carey, 2007). Why do youth have such an impact on peace and conflict? What do you see as youth's role in conflict and peace?

**DYK?**

## Did You Know?

"90 percent of modern war casualties are civilians—primarily women and children."
— Save the Children (CTP)

"Armed conflict has declined by more than 40 percent since 1992."
— Washington Post (CTP)

"Conflicts have produced 31 million refugees and other displaced persons, most of them women and children."
— Rotary International (CTP)

"War has killed 2 million children in the last 20 years."
— Peace Pledge Union (CTP)

"In the last 5,600 years, there have been only 292 years of peace."
— Peace Pledge Union (CTP)

"By the age of 16, the average American child has witnessed 18,000 murders on television."
— New Internationalist (CTP)

"On average, more Americans die each year from lightning strikes than die as a result of a terrorist attack."
— Harper`s Magazine (CTP)

"The first bomb that the Allies dropped on Berlin during the Second World War killed the only elephant at the Berlin Zoo."
— Amazing Facts.com (CTP)

"There are 92 known cases of nuclear bombs lost at sea."
— Did You Know? (CTP)

"Since 1495, there has never been a 25-year period of time without war erupting somewhere in the world."
— Bluworld

"The longest war was called the Hundred Years War, where Britain and France battled for 116 years, ending in 1453. Britain introduced direct taxation on the income of its citizens because of the high military expense. "
— Bluworld

"The shortest war took place in 1896, when Zanzibar surrendered to Britain after 38 minutes."
— Bluworld

"With the combined causalities of the First and Second World Wars, the Vietnam War, and the Korean War, as well as an increase of civil and region conflicts, the 20th century was the bloodiest century in history."
— Bluworld

"In today's armed conflicts, more than 90 percent of deaths are civilians and half of them are children. Less than 10 percent of casualties from armed conflicts are soldiers."

– Bluworld

"1994, the Rwanda genocide killed over half a million people, including about three-quarters of the Tutsi population. The UN Security Council assisted the International Criminal Tribunal for Rwanda, which charged at least 10,000 people with human rights violations and crimes against humanity."

– Bluworld

"In 1994, the World Health Organization declared violence as the 'leading worldwide public health problem.'"

– Bluworld

"Not only is global military spending 170 times greater than global spending on education, but the lowest literacy rates and access to education are in areas of continued war and conflict."

– Bluworld

"Ninety percent of human death due to conflict is caused by small arms like handguns, sub-machine guns, landmines, and grenades."

– Bluworld

"Some 639 million guns make up the global stockpile of small arms—60 percent of them belong to civilians. Estimates of the black market trade of small arms reach up to $10 billion a year."

– Bluworld

"Violent conflict has also caused some of the world's worst environmental disasters. For example, the United States sprayed 77 million litres of toxic Agent Orange in Vietnam, and 36 tonnes of depleted uranium from armour-piercing bullets was left behind in Kuwait and Iraq after the Gulf War."

– Bluworld

"Landmines still cover large areas of at least 90 of the world's countries. About 25,000 people are injured or killed by landmines each year, primarily in Iraq, Afghanistan, Cambodia, Angola, and Africa. Africa alone has between 18–30 million landmines. Not only do these landmines endanger human life, but they also make land unusable in countries that already lack resources."

– Bluworld

"The UN has been the most successful peace-preserving and mediation institution, even though its budget is only a small fraction (approximately 1.8 percent) of global military spending."

– Bluworld

"Though over 300 international conflicts broke out between 1945 and 2000, there were also 3,750 cases of mediation within those same years. Institutional mediation resolved 255 worldwide conflicts from 1945 to 1974."

– Bluworld

"Civil wars in El Salvador, Mozambique, Namibia, Nicaragua, and South Africa were all brought to an end through civil negotiation and formal mediation."

– Bluworld

## Effective Examples of Non-violence in History:

■ The British gave up their occupation of India after a decades-long non-violent struggle led by Gandhi.

■ The Nazis were resisted effectively by Danes and other occupied peoples of Europe in the Second World War.

■ African-Americans opted for non-violent action to defeat segregation in the United States in the 1960s.

■ The Polish Solidarity movement used strikes to win the right to organize freely, a historic first in communist Poland.

■ Filipinos and Chileans brought down dictators in the 1980s through non-violent action.

■ The non-violent civic movement in South Africa employed boycotts and other sanctions to weaken the Apartheid regime to the point of forcing negotiations on the country's political future.

■ East Europeans and Mongolians organized mass non-violent campaigns to topple their communist governments.

■ The Serbs ousted Slobodan Milosevic in 2000 after a non-violent student movement helped co-opt the police and military and undermine his base of support.

People who work in the field of peace and conflict have careers in education, journalism, courts, government, foreign services, international development, non-governmental organizations, and corporations that invest overseas.

## Thought-Provoking Quotations

"Non-violence is not inaction. It is not discussion. It is not for the timid or weak... Non-violence is hard work. It is the willingness to sacrifice. It is the patience to win."
— Cesar Chavez

"Unless we teach children peace, someone else will teach them violence."
— Colman McCarthy

"Peace, in the sense of the absence of war, is of little value to someone who is dying of hunger or cold. It will not remove the pain of torture inflicted on a prisoner of conscience. It does not comfort those who have lost their loved ones in floods caused by senseless deforestation in a neighbouring country. Peace can only last where human rights are respected, where people are fed, and where individuals and nations are free."
— 14th Dalai Lama (1995)

"Each person has inside a basic decency and goodness. If he listens to it and acts on it, he is giving a great deal of what it is the world needs most. It is not complicated but it takes courage. It takes courage for a person to listen to his own goodness and act on it."
— Pablo Casals

"United we stand, divided we fall."
— Aesop

"Toleration is good for all, or it is good for none."
— Edmund Burke

"If we could change ourselves, the tendencies in the world would also change."
— Mohandas Gandhi

"The purpose of all war is peace."
    – St. Augustine

"In the practice of tolerance, one's enemy is the best teacher."
    – 14th Dalai Lama (2006)

"A human being is a part of the whole that we call the universe, a part limited in time and space. He experiences himself, his thoughts and feelings, as something separated from the rest—a kind of optical illusion of his consciousness. This illusion is a prison for us, restricting us to our personal desires and to affection for only the few people nearest us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living beings and all of nature."
    – Albert Einstein

"War is no solution to a problem. It's useless. Why make things that destroy humanity?"
    – Charles Mance

"We may have all come on different ships, but we're in the same boat now."
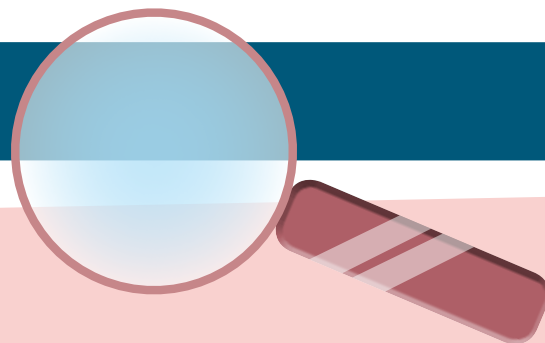    – Martin Luther King, Jr.

"What you do not want others to do to you, do not do to others."
    – Confucius (Tu, et al.)

## Making a Difference

| Name | How they make a difference |
|---|---|
| Cesar Chavez | Cesar Chavez, a Mexican-American, became the best known Latino American civil rights activist. He is known for his non-violent tactics, which made the farm workers' struggle a moral cause with wide support. |
| David McTaggart | David McTaggart (Canadian), an environmentalist who played a central part in the foundation of Greenpeace International, protested the testing of nuclear weapons by the French Government and led a campaign to create the Southern Ocean Whale Sanctuary. |
| Dr. Martin Luther King Jr | Dr. Martin Luther King Jr., leader of the African-American civil rights movement, was particularly famous for his "I Have a Dream" speech. King was awarded the Nobel Peace Prize in 1964 for combating racial inequality through non-violence. |
| Gene Sharp | Gene Sharp, known for his extensive writings on non-violent struggle, influenced numerous anti-government resistance movements around the world. Gene Sharp was nominated for the Nobel Peace Prize in 2015 and was previously nominated three times in 2009, 2012, and 2013. |
| Henry Dunant | Henry Dunant, a 19th-century Swiss businessman, proposed that volunteer relief groups be granted protection during war in order to care for the wounded. This was in response to witnessing the aftermath of a bloody battle between French and Austrian armies in Solferino, Italy, in which thousands of wounded men were left to die on the battlefield. Based on Dunant's suggestions, the International Committee of the Red Cross formed in Geneva, and began the development of the Geneva Conventions, providing protection for people in times of conflict. |
| Johan Gultang | Johan Gultang, a Norwegian sociologist, mathematician, and the principal founder of the discipline of peace and conflict studies, developed several influential theories, such as the distinction between positive and negative peace, structural violence, theories on conflict and conflict resolution, and the concept of peace building. |
| Malala Yousafzai | Malala Yousafzai, a Pakistani advocate for female education, was shot in the head for attending school. She is now the youngest recipient of the Nobel Peace Prize (at age 17) and was named one of "The 100 Most Influential People in the World" in 2013 by *Time Magazine*. |
| Mohandas Karamchand Gandhi | Mohandas Karamchand Gandhi led India to independence by employing non-violent civil disobedience tactics. Gandhi inspired movements for civil rights and freedom across the world. The title "Mahatma" Ghandi, is Sanskrit for "high-souled" or "venerable" and was first applied to him in 1914 in South Africa. |

## Glossary

**Armed conflict:**
"Conflicts where parties on both sides resort to the use of force. (Ramsbotham et al., p. 28)

**Asymmetric conflict:**
"When conflict arises between dissimilar parties, such as between a majority and a minority, an established government and a group of rebels, a master and his servant, or an employer and her employees. These conflicts lie not in particular issues or interests but in the very structure of who they are and the relationship between them." (Ramsbotham et al., p. 24)

**Conflict:**
"The pursuit of incompatible goals by different groups." (Ramsbotham et al., p. 27)

**Conflict resolution:**
Where the deep-rooted source of conflict are addressed and transformed. The term is used to refer both to the process (or intention) to bring about changes and to the completion of the process. The aim of conflict resolution is not the elimination of conflict but rather to transform actually or potentially violent conflict into peaceful (non-violent) processes of social and political change. (Ramsbotham et al., p0. 29)

**Mediation:**
A voluntary process, involving the intervention of a third party.

**Negative peace:**
"The absence of violence." (Knox)

**Negotiation:**
"The process whereby the parties within the conflict seek to settle or resolve their differences." (Ramsbotham et al., p. 29)

**Peace building:**
An underpinning of the work of peacemaking and peacekeeping that is accomplished by addressing structural issues and the long-term relationships between conflictants.
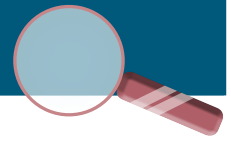
**Peacekeeping:**
Refers to the interposition of international armed forces to separate the armed forces of belligerents. (Ramsbotham et al., p. 32)

**Peacemaking:**
"The sense of moving towards settlement of armed conflict, where parties in conflict are induced to reach agreement voluntarily." (Ramsbotham et al., p. 32)

**Positive peace:**
"The presence of social justice and equality, and the absence of structural or indirect violence;" not only the absence of war but also absence of the instruments and the institutions of war. (Knox)

**Reconciliation:**
> "A longer term process of overcoming hostility and mistrust between divided peoples." (Ramsbotham et al., p. 32)

**Restorative justice:**
> Restorative justice involves active participation to work towards a peaceful resolution by those involved in a dispute or those responsible for or affected by a crime.

**Symmetrical conflict:**
> "Conflicts of interest between relatively similar parties such as a brother and sister, an employee and another employee, or two established governments." (Ramsbotham et al., p. 24)

**Violent or deadly conflict:**
> "Similar to armed conflict but also includes one-sided, direct, physical violence such as genocides against unarmed civilians." (Ramsbotham et al., p. 31)

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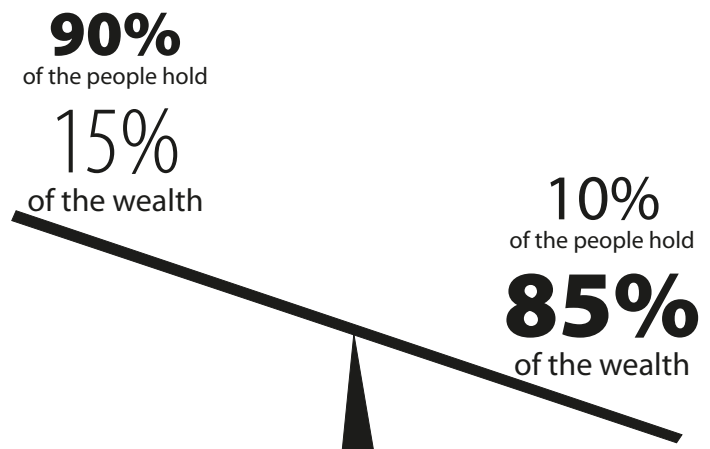
*Poverty, Wealth, and Power*

# Poverty, Wealth, and Power

## Introduction

*"Almost 90 percent of the world's wealthiest adults are in North America, Europe, and Japan." (Davies et al.)*

Wealth and power are two things most people aspire to. They are also the hallmarks of prosperous nations and successful corporate entities. Wealth is, simply put, an accumulation of resources. A wealthy (or rich) individual, community, or nation has more resources than a poor one. Power is the ability to exert control over one's environment or other entities. Both wealth and power are intimately tied to societal structures.

**90%**
of the people hold

15%
of the wealth

10%
of the people hold

**85%**
of the wealth

In Canada, most people have wealth that is unimaginable to much of the rest of the world. In 2006, the year the United Nations Millennium Development Goals were put in place to support basic needs for the poorest individuals in the world, Canada's net worth per capita was US$70,916. In contrast, Ethiopia had per-capita wealth of US$193 and Congo had US$180. One percent of the world's adults are estimated to hold 40 percent of the world's wealth. Most of the wealthiest adults (almost 90 percent) are concentrated in North America, Europe, and Japan.

According to a recent report by the Helsinki-based World Institute for Development Economics Research, the richest 10 percent of adults in the world own 85 percent of global household wealth, and the average person in the top 10 percent has nearly 3,000 times the wealth of the average person in the bottom 10 percent. "Among the richest countries, mean wealth was $144,000 per person in the USA and $181,000 in Japan. Lower down among countries with wealth data are India, with per capita assets of $1,100, and Indonesia with $1,400 per capita." (Davies et al.)

GAPMINDER

There is a widening gap between rich and poor; however, this is not a simple question of extreme wealth in developed countries and extreme poverty in developing countries. Using data, European researcher Hans Rosling founded a website at www.gapminder.org that shows how wealth and poverty have been shifting over time. Countries often defy our expectations (e.g., Botswana in Africa is richer than Albania). Also, now countries with very unequally distributed incomes are mostly found in Latin America and parts of Sub-Saharan Africa. Incomes are often more evenly distributed in the West, Asia, and the Middle East. Furthermore, the overall trend is positive. "In 2013, 10.7 percent of the world's population lived on less than US$1.90 a day, compared to 12.4 percent in 2012. That's down from 35 percent in

1990. This means that, in 2013, 767 million people lived on less than $1.90 a day, down from 881 million in 2012 and 1.85 billion in 1990." (World Bank, 2016, p. 3) This translates into a better quality of life, including healthier populations. "Substantial global progress has been made in reducing child deaths since 1990. The number of under-five deaths worldwide has declined from 12.7 million in 1990 to 5.9 million in 2015." (WHO) This equals 16,000 every day compared with 35,000 in 1990."

Often defined in purely economic terms, wealth relates to one's capacity to engage easily and productively in society. This means "having enough money to fulfill basic needs: food, adequate shelter, basic healthcare, and education. Economic security is connected to employment. Having access to adequate pay and stable work makes for security. With this security comes many privileges that people in developed countries sometimes take for granted, such as access to credit and loans. Without secure work, most banks and credit companies will not provide services." (U.N., n.d.)

This same access to credit and loans can lead to the opposite of wealth: debt. The debt load at an individual and country level can be paralyzing; it affects decision making, thereby limiting choices. At an individual level, there is an interesting paradox around wealth. If (as it often is) wealth is defined as the value of physical and financial assets minus debts, then, paradoxically, high-income countries have some of the poorest people in the world because of their large mortgage debts. In a report for the Canadian Centre for Policy Alternatives, Steve Kerstetter finds that only those with above-average wealth have assets beyond housing that can be used in the event of a financial crisis.

*Income*

*Expenses*

At a macro-level, debts and deficits are common. Many countries have crippling debts that affect their ability to deliver such things as social services. Even in Canada, cuts in social spending have been made in order to reduce the deficit and pay off debt. Such cuts hit women and children the hardest. Globally, women comprise 70 percent of the world's poor (Davies et al.). According to the data provided by the Centre for Social Justice, in Canada, the poverty rate for women in general is 20 percent; for women of colour it is 37 percent; and for Indigenous women it is 43 percent. Forty-one percent of people using food banks are children, and there are over 1.2 million Canadian children living in poverty.

The impact of debt is more pronounced in developing countries, where the sums borrowed from wealthier countries and international banks are staggering and often come with terms attached (e.g., structural adjustment). "In Africa, an estimated 500,000 more children died from the imposed restructuring of their countries' economies to ensure increased flows of money to external banks, while spending on health care declined by 50 percent and on education by 25 percent since structural adjustment programs began." (McMurtry, p. 305)

Challenges associated with debt and deficit spending are compounded by military spending. The Stockholm International Peace Research Institute notes the increasing concentration of military

expenditure (i.e., that a small number of countries spend the largest sums). This trend carries on into 2009 spending. For example, the 15 countries with the highest spending account for over 82 percent of the total. The USA is responsible for 46.5 percent of the world total, distantly followed by China (6.6 percent of the world share), France (4.2 percent), the UK (3.8 percent), and Russia (3.5 percent).

# What makes some people poor and others rich?

Debt relief is starting to come for the most heavily indebted poor countries (HIPC). In July 2005, governments agreed to 100 percent cancellation of multilateral debts owed by HIPC countries to the World Bank, IMF, and African Development Bank. Debt relief must be tied to increased aid. However, despite the fact that donor nations' wealth increased from the 1990s to 2009, the level of aid (tied to that growth) did not increase. In the 1990s, it actually fell. Aid for the poorest countries remained at a steady dollar amount in this period. Government donations are complemented by private aid or donations through the charity of individual people and organizations. The Hudson Institute estimates the U.S. donated $326.4 billion to developing countries in 2010. Of this, only 9 percent was provided by government agencies. The rest was private capital, philanthropy, and remittances. (Hudson Institute, p. 5)

What makes some people poor and others rich? It is commonly accepted that wealth comes from hard work and from acquiring certain skill sets. Although there is truth to this, there are structural reasons why some people get richer and others do not. At a social level, there are insiders, boys' clubs, and Ivy League elites. It is also true that, in addition to hard work, success breeds success. You learn how to operate in the environment that you live in. "You have to learn the rules of the game. And then you have to play better than anyone else."

In terms of the link between wealth and success, it is important to note that as one accrues wealth, it becomes easier to access credit to invest in start-up costs. This means that one is better able to leverage for higher (potential) success. Business loans, micro-credit, and angel investors are antidotes to this liquidity challenge, but they will not replace the ability for those with significant assets to make their own decisions. At a higher scale, this can apply to provinces, parts of a population (e.g., Indigenous peoples), countries, or regions. Ready access to resources (including an educated and healthy population) strengthens the ability of these actors to be free in their decision making.

A framework that is useful in understanding how resources (wealth) can lead to enhanced autonomy and increased well-being is the capability approach. Through it, Nobel prize winner Amartya Sen (1985) argued for five components in assessing capability:

1. The importance of real freedoms in the assessment of a person's advantage

2. Individual differences in the ability to transform resources into valuable activities

3. The multivariate nature of activities giving rise to happiness

4. A balance of materialistic and non-materialistic factors in evaluating human welfare

5. Concern for the distribution of opportunities within society

The fourth point about a balance of materialistic and non-materialistic factors is a critical one. Being wealthy is not the same as well-being, unless wealth is defined in terms beyond the purely economic. Indeed, "one of the most significant observations is that in industrialized nations, average happiness has remained virtually static since the Second World War, despite a considerable rise in average income.… These days even hard-headed economists tend to agree that the key to making people happier is to shift from pure economic growth—which fuels a consumerist culture that is antithetical to happiness—to personal growth." (Bond, p. 40)

What structures set the parameters for wealth accrual and resource flow? At its heart, one of the main engines of development for the Industrial Revolution was the modern system of free trade, free enterprise, and market-based economies that emerged around 200 years ago. The economies of less-developed countries rely mostly on agriculture and related subsistence activities (because people need food more than anything else). As incomes increase, economies become industrialized, followed by growth in the service sector, where industry and agriculture shrink. This economic development pathway has traditionally led to better living conditions and a healthier population. This was the case for many Asian countries in the 1950s and 1960s. A recent World Bank report confirms, "Most countries… start out with a relatively high dependence on natural capital, and those that progress most successfully manage their assets for the long term and reinvest in human and social capital as well as in building strong institutions and systems of governance." (World Bank, 2011)

However, development is not guaranteed. Many nations have faced setbacks to development, such as economic recessions, famines, and medical epidemics like HIV/AIDS. Some countries have leapfrogged over this development path and became wealthy by exporting their oil resources. Oil continues to be a major source of wealth and power in today's economy.

The global trade and financial system affects every one of us, even if we don't see it functioning on a daily basis. The goods we consume, the state of our corporations, our national security, and our wealth as a country are all tied up in global wealth structures and our relationships with other countries.

International trade decisions are often made in favour of countries that can do things cheaply and quickly, which increases the profits of corporate shareholders but not necessarily the producers of the raw materials. Governments set up trade rules, but they are strongly influenced by corporations. This is in great part due to the increasing economic power of corporations. Of the 100 largest economies in the world, 51 are corporations and only 49 are countries (based on a comparison of corporate sales and country GDPs). (Anderson and Cavanagh)

International trade and globalization can bring great benefits to many people, but the financial and power systems that currently exist can also perpetuate poverty and harm our environment. For example, "according to the European Fair Trade Association, farmers get barely 5 percent of the profit from chocolate, whereas trading organizations and the chocolate industry receive about 70 percent. This means that producers get only 5 cents from every dollar spent on chocolate, while the companies get 70 cents—14 times more!" (Wheaton College) Nobel Prize winner Amartya Sen says the problem is not free trade, but the inequality of global power. He strongly welcomes the rise of the non-governmental movement, which combines with media coverage to produce the beginning of some "countervailing power" to the larger corporations and the traditional policies of developed country governments.

The rise of non-governmental organizations and the increasing democratization of communication streams through new media are two trends that seek to redress power imbalances. What are some of the other ways in which we can have an impact, as individual citizens and within broader society? For this, we need to look at sources of power (see the list of sources of power in the following pages), which include knowledge and moral persuasion. The fair trade movement and eco-labelling help redress some of the transparency issues around how goods are produced and bring wealth into local communities. We can increase non-material wealth in our societies. Happiness research suggests, "a government's priorities should be to
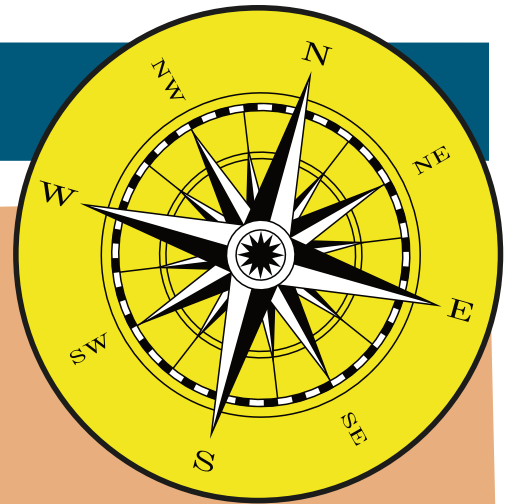
reduce unemployment and job insecurity, improve mental healthcare, encourage direct democracy (studies in Switzerland, where referendums are common, suggest people are happier the more they feel in control of their lives), and—perhaps most controversially—discourage the pursuit of status." (Bond, p. 40)

Corporations can become engines for good. Economist Paul Hawken argues that "if they [companies] believe they are in business to serve people, to help solve problems, to use and employ the ingenuity of their workers to improve the lives of people around them by learning from the nature that gives us life, we have a chance." (Hawken) How can they do this? First, their products can fuel wealth acquisition (e.g., the use of cell phones to better track current market prices in developing countries). They can also redress power imbalances (e.g., the Internet has made it easier for individuals to seek and apply for jobs in their area of interest). Corporations are the most likely source of new design ideas as we transform towards a sustainable society. We will need new ways of doing so many things and the engineers, software technicians, and bankers of the future will help us discover what these might be. These ideas need to go beyond the end of the pipe, argues *Cradle to Cradle* author and architect William McDonough: "You don't filter smokestacks or water. Instead, you put the filter in your head and design the problem out of existence." Corporations will also fuel innovation in the non-profit and research sector through their philanthropy and partnership.

Redressing structural imbalances in terms of access to capital, we can start to look at strengthening the social system. Micro-lending has been a powerful way to increase wealth in otherwise asset-poor populations. This is true in Canada as well as other parts of the world. Kiva.org and the Grameen Bank are two notable examples. As individuals, we can explore our own assets and how these are invested. Ethical investment has increased in the past decade, including through momentum from the principles for responsible investment. We can also decide to be active shareholders in companies we have stocks in. As Canadians, we can be conscious consumers, using our wealth to support products and practices we believe in through fair trade and buying durable goods.

At a values level, there is a deeper challenge. The question of wealth and power is tied to rethinking what it means to build an economy on a planet with very real ecological limits. In terms of wealth, this next generation is going to be tasked with redefining wealth in broader than economic terms, which rely on other measures of well-being and which strengthen our human capabilities.
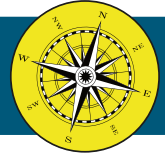


**BG-10.8**

## Exploring the Issues

The topics of poverty, wealth, and power have many dimensions that will be of interest to students. The systemic nature of these topics of inquiry is reflected in the following suggested issues.

| Poverty and Wealth | Power | Corporations | Globalization and Trade |
|---|---|---|---|
| ■ Concentration of wealth<br>■ Widening gap between rich and poor<br>■ Debt<br>■ Ethical investment<br>■ Micro-lending<br>■ Underground economies<br>■ Farmers' markets<br>■ Non-material wealth (e.g., happiness indicators, well-being)<br>■ Ethical investment<br>■ Economic disparities within and between countries | ■ Labour movement<br>■ Military industrial complex<br>■ Organized crime<br>■ Economic sanctions<br>■ Status<br>■ International arms sales and marketing<br>■ Global domination (G8, G20, World Bank, OECD) [Refer to Sources of Power table on the following page] | ■ Multinational and transnational corporations<br>■ Regulation<br>■ Erosion of government authority<br>■ Corporate<br>■ Social responsibility<br>■ Transformative technologies<br>■ Cooperatives<br>■ Social enterprises | ■ Fair trade aid levels |

## What are different sources of power and how do they play out?

Power may be held through:

- Delegated authority (e.g., in the democratic process)
- Social class (material wealth can equal power)
- Personal or group charisma
- Ascribed power (acting on perceived or assumed abilities, whether these bear testing or not)
- Expertise or ability (e.g., the power of medicine to bring about health; "In the land of the blind, the one-eyed man is king." – Erasmus)
- Persuasion (direct, indirect, or subliminal)
- Knowledge (granted or withheld, shared or kept secret)
- Celebrity
- Force (violence, military might, coercion)
- Moral persuasion (including religion)
- Operation of group dynamics (such as public relations)
- Social influence of tradition (compare ascribed power)
- In relationships; domination/submissiveness

## Essential Questions

The questions that underpin this topic are diverse. They bring students to a place of inquiry around their lives and the structures (rules, norms, power relations) that influence their world. By exploring these questions and the resources outlined in this paper, teachers will help spark awareness and creativity in their students. Students will pose additional questions and start looking at alternatives to the status quo at levels from the individual to the global.

### Wealth and Poverty

- What measurable inequalities remain in Canada? Are these avoidable?
- Are there structural conditions that limit access to resources or limit capabilities?
- How does the social safety net (e.g., health care) protect Canadians from the worst impacts of structural inequities?
- How have debts affected the quality of life for people in less-developed countries?
- How has modern technology increased education and wealth gaps? How has it narrowed them? How has life changed in Canada over the last century?
- "How much resource use per capita is sufficient for a good life? How do we ensure that everyone gets that amount? How large a population can be supported at that standard of consumption without sacrificing carrying capacity and future life?" (Daly)
- Why is life expectancy generally higher in "wealthier" countries?
- Why are some countries very wealthy and others so poor? Are all the poor countries concentrated in the same part of the world? Is "West" always "rich" or is "South" always poor?

### Power

- What kind of inequities are there between provinces in Canada? How are they managed? Who benefits most from "free trade"? Who benefits least?
- Who makes decisions related to our lives? What structures exist that keep things the way they are? What structures hold the potential for change?
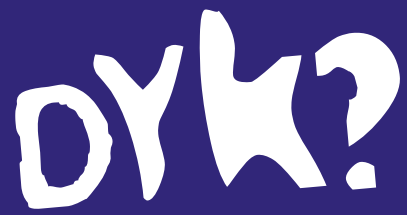- How do partnerships help open up new possibilities?

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### Corporations

- How have corporations changed over the last century? How has this affected the way people do business in Canada? ...globally? For example, how has the business of agriculture changed?

- How is it that corporations can own part of the natural world (e.g., patenting of seeds)?

- In what ways do individuals help create a "race to the bottom" for corporations related to labour and environmental standards? In what ways do individuals support stronger standards related to the environment or social issues? ...nationally? ...globally?

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### Globalization and Trade

- How are we connected to other places on the planet?

- How can globalization improve people's well-being? How might it affect people negatively? Why is there this backlash against globalization, which is supposed to generate peace and prosperity?

- What are the impacts of globalization on the environment?

- What are some alternatives to the current models of globalization and free markets? How might "fair trade" be better than "free trade"?

**DYK?**

## Did You Know?

"The Top 200 corporations' combined sales are 18 times the size of the combined annual income of the 1.2 billion people (24 percent of the total world population) living in 'severe' poverty." (Anderson and Cavanagh)

"The Business Council on National Issues is the senior voice in the business community, composed of 150 chief executive officers (CEOs) from the major transnational corporations with over $1.6 trillion in assets, $500 billion in revenues, and one and a half million employees. The leading business association in Canada, it orchestrates a consensus among other business organizations. It has advised on the Canada–U.S. free trade agreement, and NAFTA, and the adoption of the Goods and Services Tax (GST)." (Centre for Social Justice)

Sales of the Top 200 [corporations] are the equivalent of 27.5 percent of world economic activity, yet those corporations employ just 0.78 percent of the world's workforce. (Anderson and Cavanagh)

"Of the U.S. corporations on the list, 44 did not pay the full standard 35 percent federal corporate tax rate during the period 1996–1998. Seven of the firms actually paid less than zero in federal income taxes in 1998 (because of rebates). These include Texaco, Chevron, PepsiCo, Enron, Worldcom, McKesson, and the world's biggest corporation: General Motors." (Anderson and Cavanagh)

"Global research conducted by Hewitt revealed that organizations with high engagement generated total shareholder returns that were 29 percent above average. Those with moderate engagement produced returns that were only 1 percent above average. Organizations with low engagement had total shareholder returns that were 60 percent below average. … The 2010 Best Employers in Canada study indicated that perceptions of corporate social responsibility appear as one of the top-five threats to employee engagement more than a third of the time. At a minimum, organizations need to sustain their current CSR commitments or risk a decline in employee engagement." (CBSR)

"Close to one-third of the wealth of low-income countries comes from their 'natural capital,' which includes forests, protected areas, agricultural lands, energy, and minerals, according to a new World Bank book launched on January 20, 2011. Countries that manage these natural assets carefully are able to move up the development ladder—investing more and more in manufactured capital, infrastructure, and 'intangible capital' like human skills and education, strong institutions, innovation, and new technologies." (World Bank, 2011)

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"In 2005, the wealthiest 20 percent of the world accounted for 76.6 percent of total private consumption; the poorest fifth just 1.5 percent. Women comprise 70 percent of the world's poor." (World Bank, 2008)

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"Although fair trade coffee constitutes only 2 percent of the world's coffee supply, consumer demand for fair trade coffee has grown in the United States—from 1.9 million pounds imported in 1999 to 6.7 million pounds imported in 2001." (Frontline World)

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Each year, there are around $45–60 billion worth of arms sales. Most of these sales (something like 75 percent) are to developing countries. (Shaw, January 5, 2013)

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"The United Nations was set up to preserve peace through international cooperation and collective security. Yet, the UN's entire budget is just a tiny fraction of the world's military expenditure—approximately 1.8 percent." (Shaw, June 30, 2013)

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Indigenous peoples in urban areas are more than twice as likely to live in poverty as non-Indigenous people. (Lee)

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In Manitoba, Indigenous people have much lower incomes than the population as a whole. Among those aged 15 and older, the median annual income in 2005 was $15,246 among Indigenous people, but $24,194 for the overall provincial population. (Carter and Polevychok)

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## Thought-Provoking Quotations

"Debt is an efficient tool. It ensures access to other peoples' raw materials and infrastructure on the cheapest possible terms. Dozens of countries must compete for shrinking export markets and can export only a limited range of products because of Northern protectionism and their lack of cash to invest in diversification. Market saturation ensues, reducing exporters' income to a bare minimum while the North enjoys huge savings. The International Monetary Fund cannot seem to understand that investing in . . . [a] healthy, well-fed, literate population . . . is the most intelligent economic choice a country can make."
    – Susan George

"The big issue on the planet is not just the fact that we're going from 6.7 billion people today to 9.2 billion. It's the number of people living an American lifestyle, eating American-sized Big Macs, living in American-sized houses, driving American-sized cars, on American-sized highways."
    – Thomas Friedman (2008)

"The future belongs to those who understand that doing more with less is compassionate, prosperous, and enduring, and thus more intelligent, even competitive."
    – Paul Hawken

"Business is the economic engine of our Western culture, and if it could be transformed to truly serve nature as well as ourselves, it could become essential to our rescue."
    – Karl-Henrik Robèrt (Nattrass and Altomare, p. xiv)

"Competition between companies involved in manufacturing in developing countries is often ruthless. We are seeing what Korten described as 'a race to the bottom.' With each passing day it becomes more difficult to obtain contracts from one of the mega-retailers without hiring child labor, cheating workers on overtime pay, imposing merciless quotas, and operating unsafe practices."
— John Madeley

"Few propositions command as much consensus among professional economists as that open world trade increases economic growth and raises living standards."
— N. Gregory Mankiw

"This neoclassical trade theory focuses on one dimension, i.e., the price at which a commodity can be delivered and is extremely narrow in cutting off a large number of other considerations about impacts on employment in different parts of the world, about environmental impacts and on culture."
— Peter Söderbaum

"When individuals join in a cooperative venture, the power generated far exceeds what they could have accomplished acting individually."
— R. Buckminster Fuller (Eversole)

"Starvation is the characteristic of some people not having enough food to eat. It is not the characteristic of there being not enough food to eat."
— Amartya Sen

"Poverty has traditionally been measured as a lack of income but this is far too narrow a definition. Human poverty is a concept that captures the many dimensions of poverty that exist in both poor and rich countries—it is the denial of choices and opportunities for living a life one has reason to value. The HPI-1—human poverty index for developing countries—measures human deprivations in the same three aspects of human development as the HDI (longevity, knowledge and a decent standard of living)."
    – United Nations Development Programme

"Whiteness forms an unmarked category not commonly visible to the powerful, as they often fall within this category. The unmarked category becomes the norm, with the other categories relegated to deviant status. Social groups can apply this view of power to race, gender, and disability without modification: the able body is the neutral body; the man is the normal status."
    – Olanike F. Deji

"It has been suggested that economic growth solves many problems, but what we've found is that if you just make everyone wealthier, especially among the wealthy countries and wealthy people, people are going to have higher standards of living but not necessarily feel better about life. Everyone's deriving their happiness in part relative to material standards set by others. Measuring progress solely by growth in GDP is an outmoded idea because we have better ways to measure our social objectives. . .We know that people in Maritime provinces are happier than people in bigger provinces with bigger cities. Policy-wise, it doesn't mean we should all move to small towns or to the Maritimes, it means there are all sorts of policy interventions we can think about."
    – Chris Barrington-Leigh

"The types of power are "Condign" (based on force), "Compensatory" (through the use of various resources) or "Conditioned" (the result of persuasion). Their sources are "Personality" (individuals), "Property" (their material resources) and "Organizational" (whoever sits at the top of an organizational power structure)."
    – John Kenneth Galbraith

"Even though...[United Nations] targets and agendas have been set, year after year almost all rich nations have constantly failed to reach their agreed obligations of the 0.7 percent target [of aid to developing countries]. Instead of 0.7 percent, the amount of aid has been around 0.2 to 0.4 percent, some $100 billion short."
 — Anup Shaw (2014)

"The earth provides enough to satisfy every man's needs, but not every man's greed."
 — Mahatma Gandhi (Nayyar)

"Mother Nature doesn't do bailouts... We have been getting rich by depleting all our natural stocks—water, hydrocarbons, forests, rivers, fish and arable land—and not by generating renewable flows."
 — Thomas Friedman (2009)

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."
 — Alvin Toffler

## Making a Difference

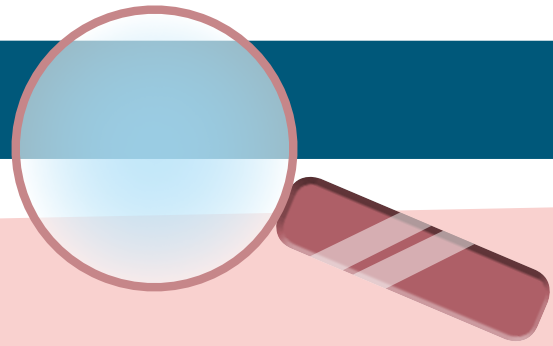| Name | How they make a difference |
|---|---|
| **The Fairtrade Foundation**  | The Fairtrade Foundation is an independent non-profit organization that licenses use of the FAIRTRADE mark on products in the U.K. in accordance with internationally agreed-upon fair trade standards. Fairtrade seeks to transform trading structures and practices in favour of the poor and disadvantaged. By facilitating trading partnerships based on equity and transparency, Fairtrade contributes to sustainable development for marginalized producers, workers, and their communities. Through demonstration of alternatives to conventional trade and other forms of advocacy, the fair trade movement empowers citizens to campaign for an international trade system based on justice and fairness. www.fairtrade.org.uk/ |
| **The Yes Men**  | The Yes Men are "two guys who just can't take no for an answer." They pose as top executives of corporations they hate. Armed with nothing but thrift-store suits, the Yes Men lie their way into business conferences and parody their corporate targets in ever-more extreme ways—basically doing everything that they can to wake up their audiences to the danger of letting greed run our world. Their targets are leaders and big corporations who put profits ahead of everything else. They have made films and written books about their exploits, which can be found at http://theyesmen.org/. |
| **Joseph Stiglitz** | Joseph Stiglitz is a professor of economics at Columbia University and a former World Bank Chief Economist and Senior Vice-President (1997–2000). Since leaving the World Bank, he has written numerous books on the failings of globalization. His work has helped to explain the circumstances in which markets do not work well and how selective government intervention can improve their performance. https://www8.gsb.columbia.edu/faculty/jstiglitz/bio |
| **Jubilee Debt Campaign**  | Jubilee Debt Campaign demands an end to poor countries paying money to the rich world. They ask for 100 percent cancellation of "unpayable and unjust" poor country debts. www.jubileedebtcampaign.org.uk/?lid=6319 |

| Name | How they make a difference |
|---|---|
| **Bhutan** | "In 1972, concerned about the problems afflicting other developing countries that focused only on economic growth, Bhutan's newly crowned leader, King Jigme Singye Wangchuck, decided to make his nation's priority not its GDP but its GNH, or gross national happiness. Bhutan, the king said, needed to ensure that prosperity was shared across society and that it was balanced against preserving cultural traditions, protecting the environment and maintaining a responsive government. The king, now 49, has been instituting policies aimed at accomplishing these goals. Now Bhutan's example, while still a work in progress, is serving as a catalyst for far broader discussions of national well-being." (Revkin, 2005) |
| | "A New Measure of Well-Being from a Happy Little Kingdom" by Andrew C. Revkin (*New York Times*, October 4, 2005) http://www.nytimes.com/2005/10/04/science/a-new-measure-of-wellbeingfrom-a-happy-little-kingdom.html |
| | "Why Is Bhutan So Happy?" by Swaminathan S. Anklesaria Aiyar (October 9, 2009) www.realclearworld.com/articles/2009/10/09/growth_and_happiness_in_bhutan_97248.html |
| **Kiva** | Kiva is a non-profit organization with a mission to connect people through lending to alleviate poverty. Leveraging the Internet and a worldwide network of microfinance institutions, Kiva lets individuals lend as little as $25 to help create opportunity around the world. 100 percent of every dollar you lend on Kiva goes directly towards funding loans; Kiva does not take a cut. Providing safe, affordable access to capital to those in need helps people create better lives for themselves and their families. www.kiva.org/ |
| **Ashoka** | Ashoka strives to shape a global, entrepreneurial, competitive "citizen sector," one that allows social entrepreneurs to thrive and enables the world's citizens to think and act as change makers. They work to support social entrepreneurs as individuals and in collaboration. www.ashoka.org/ |
| **Amartya Sen** | Amartya Sen, a Nobel Prize winner for Economics originally from India, has been instrumental in the fields of economics and social justice. Arguing that simple measures of GNP were not enough to assess the standard of living, he helped to create the United Nations' Human Development Index, which has become the most authoritative international source of welfare comparisons between countries. |

| Name | How they make a difference |
|---|---|
| **Muhammed Yunus**<br> | Muhammed Yunus, "Banker to the Poor," established the Grameen Bank in Bangladesh in 1983, fueled by the belief that credit is a fundamental human right. His objective was to help poor people escape from poverty by providing loans on terms suitable to them and by teaching them a few sound financial principles so they could help themselves. Replicas of the Grameen Bank model operate in more than 100 countries worldwide.<br>http://nobelprize.org/nobel_prizes/peace/laureates/2006/yunus-bio.html |
| **Hans Rosling**<br> | Hans Rosling started Gapminder, a non-profit based in Stockholm that is intended to replace "devastating myths with a fact-based world view" by providing easy-to-understand data. Its website is at www.gapminder.org/, which includes a special teacher's section at www.gapminder.org/for-teachers/. |

## Glossary

**Absolute poverty:**

"When we say that someone lives in 'absolute poverty,' we mean that she or he cannot afford the basic necessities of life, such as food. A person living on less than $1.25 per day is usually assumed to live in absolute poverty. Hence, $1.25 is referred to as the "(absolute) poverty line": it is the minimum income you must have in order to not be considered poor. "Absolute" refers to the fact that the definition, in principle, should be the same in all countries and at all times: simply put, it is a person who cannot afford to buy sufficient food. Absolute poverty is, in principle, non-existent in the richest countries." (Gapminder World, p. 21)

**Capitalism:**

A way of organizing an economy so that the things that are used to make and transport products (such as land, oil, factories, ships, etc.) are privately owned by individual people and companies rather than by the government. Capitalism is the dominant economic structure around the world, particularly in developed countries.

**Co-op:**

A business or organization that is owned and operated by the people who work there or the people who use its services (e.g., a farmers' co-op).

**Corporate social responsibility (CSR):**

The way companies integrate social, environmental, and economic concerns into their values and operations in a transparent and accountable manner.

**Debt:**

Money that is owed to a lender. In an international context, it is the money that less-developed countries owe to developed countries and international lending agencies. The money borrowed is intended to help the developing countries get out of poverty, but this doesn't always happen. Countries remain poor and cannot pay back their loans.

**Economic imperialism:**

Also known as neocolonialism, it is the economic dominance of one country or group (e.g., a corporation) over another country or region, resulting in the dominant power having increased control over natural resources, labour forces, and the marketplace.

**Economic liberalization:**

A policy of reduced government regulation and fewer economic restrictions, which is intended to increase private commercial investment (e.g., free trade, privatization, outsourcing, and the establishment of economic protection zones).

**Ethical investment (socially responsible investing):**

Investment in companies with socially desirable characteristics such as fair employment practices or environmentally sound operational policies.

**Foreign aid:**
Money that is given to developing countries (usually by developed countries or charities) to help them overcome poverty, feed their people, prevent illness, etc.

**Free trade:**
A system of trade policy for goods and services across national borders without duties or other restrictions like tariffs and quotas from the respective governments. It includes the free movement of capital and labour within and between countries.

**Fair trade:**
A movement advocating for trade that contributes to environmental protection, fair wages, and good working conditions. Fair trade coffee is widely available across Canada and other fairly traded products are becoming more available.

**Globalization:**
The name given to a process in which trade, money, people, and information travel across international borders with increasing frequency and ease. The word is used most often in reference to economic globalization, which is the process of merging world markets.

**International Monetary Fund (IMF):**
Established after the Second World War and made up of 182 member countries, the IMF makes loans to very poor countries and often demands significant changes be made to their economy and government before the loan is given.

**Millennium Development Goals:**
"The U.N. Summit on the Millennium Development Goals concluded with the adoption of a global action plan to achieve the eight anti-poverty goals by their 2015 target date and the announcement of major new commitments for women's and children's health and other initiatives against poverty, hunger, and disease." (United Nations, 2010)

**Multinational/transnational corporation (TNC):**
Huge multinational businesses whose annual sales are greater than the yearly gross domestic product (GDP) of most countries. "A rough estimate suggests that the 300 largest TNCs own or control at least one-quarter of the entire world's productive assets…." (Greer and Singh)

**Organization for Economic Cooperation and Development (OECD):**
An elite group of highly industrialized, wealthy nations.

**Outsourcing:**
To send away part of a company's work to be done by people outside the company. Work is usually outsourced to developing countries where labour costs and materials are cheaper.

**Patent:**
A legal document that gives all the rights of using a particular product to one legal entity (a person or corporation). If a product has been patented (e.g., a seed or a drug), only the company with the patent can legally reproduce and sell it.

**Relative poverty:**

"...is when a person cannot afford a living standard that is reasonable, relative to what is considered normal in the country. Accordingly, the defining minimum income for relative poverty varies between countries. If the average income is higher in the country, then the relative poverty line is higher. Often the relative poverty line is set to half the median income in a country." (Gapminder World, p. 21)

**World Bank Group**

comprises five agencies that make loans or guarantee credit to 177 member countries. The World Bank Group is intended to help countries reduce poverty by offering their governments long-term loans for large-scale infrastructure projects or to support economic reform. These loans often have negative effects on these countries, which have a devastating impact on the lives of their citizens, as these loans often include burdensome conditions and lead to situations of precarious debt.

**World Trade Organization:**

An institution to govern international trade and a body of law that administers legal agreements on how countries should conduct international trade. The WTO mandate includes services, investment, and intellectual property, as well as sustainable development.

## Resources

### Activities

**The Hidden Costs of Banana Production and Trade**
A global education curriculum developed for the Ontario Grade 12 Canadian and World Issues course—growing bananas, occurring as it does in southern countries with unstable or dictatorial political situations, may have devastating effects on the land and workers.
www.global-ed.org/bananas-unpeeled.pdf

*Teacher's Guide:* **Quiz about Global Development**
A teacher's guide to a quiz about global development. The quiz uses Gapminder World. All you'll need is the Internet, a computer, and a projector.
www.gapminder.org/downloads/global-development-quiz/

**Gapminder's card game.**
This card sorting game challenges students' perceptions about the contemporary world.
www.gapminder.org/downloads/card-game/

**Looking Behind the Logo**
An assembly plan for ages 13–17 that introduces the life of a sweatshop worker in a sportswear factory.
www.oxfam.org.uk/education/resources/looking_behind_the_logo

**The Coffee Chain Game**
These materials for students ages 13+ help them explore why profits from the coffee industry are unfairly distributed.
www.oxfam.org.uk/education/resources/coffee_chain_game

**The Chocolate Trade Game**
Trace the journey of a cocoa bean from tree to chocolate bar.
http://learn.christianaid.org.uk/TeachersResources/primary/choc_trade.aspx

**The Trading Game**
Youth group age range: 11–18. Explores how international trade maintains the gap between rich and poor countries.
http://learn.christianaid.org.uk/TeachersResources/secondary/trading_game.aspx

**Is What's Good for the GDP Good for Me?**
Increases understanding of what the GDP measures, and critically evaluates whether it contributes to a healthy, sustainable society.
http://humaneeducation.org/sections/view/cultural_issues_activities

## Information

**The Centre for Social Justice**
"The Centre for Social Justice (CSJ) conducts research, education and advocacy on issues of equality and democracy."
www.socialjustice.org/

**"The Hidden Shame of the Global Industrial Economy" by Worldwatch Institute**
"Where do the raw materials to build our paneled offices, airplanes, and cell phones come from? Maybe you really don't want to know. A lot of them come from plunder, of a kind we'd like to think came to an end long ago."
www.worldwatch.org/node/543

**"21st Century Aid: Stats and Report" by Oxfam Canada**
"This report examines the evidence, and finds that whilst there is much room for improvement, good quality 21st century aid not only saves lives, but is indispensable in unlocking poor countries' and people's ability to work their own way out of poverty."
www.oxfam.ca/our-work/publications/publications-and-reports/21st-century-aid-stats-and-report

**"Trade and Investment" by ONE International**
"Trade and investment that boosts economic growth and creates job opportunities for the poorest people is key to fighting poverty."
www.one.org/international/issues/trade-and-investment/

**Fairtrade Activities Secondary**
Lots of ideas for introducing fair trade to your secondary school.
http://cafod.org.uk/Education/Secondary-schools/Fairtrade

## Curriculum

**National Geographic Globalization Lesson Plan**
Is globalization positive, negative, or both? How does it affect Indigenous cultures?
www.nationalgeographic.com/xpeditions/lessons/10/g912/globalization.html

**Inside the Global Economy**
This resource comprises 13 one-hour videos and accompanying books/lesson plans providing a multinational perspective on how the global economy and market affect individuals, businesses, and industry. The series features 26 case studies with follow-up analysis from more than 20 countries.
www.learner.org/resources/series86.html

**Make Poverty History**

Explore world trade, aid, debt, and how individual and collective action can make a difference.

www.oxfam.org.uk/education/resources/make_poverty_history/?23

**Why are Some Countries Very Wealthy and Others So Poor?**

In this lesson, you will learn about the factors that contribute to a nation's standard of living.

www.econedlink.org/lessons/index.php?lid=113&type=student

**The Effects of Globalization (Lesson Plan)**

How does the entry of the WTO affect countries' economies and well-being?

www.pbs.org/wnet/wideangle/lessons/the-effects-of-globalization/introduction/190/

**Why is Globalization so Controversial?**

These two interactive videos on globalization, which are based on one of the lessons from the *Focus: Globalization* publication, provide an overview of the major issues that have been raised in the debate over globalization. The introduction video includes an educator describing how she teaches the lesson in her classroom. The classroom video is a demonstration of the lesson being taught to students.

www.econedlink.org/interactives/index.php?iid=120&type=student

**Milking It: Small Farmers and International Trade**

Suitable for pupils aged 13–16, this free resource explores the work of two dairy farmers—one in Jamaica and one in Wales. It shows how world trade practices, rules, and institutions affect their lives. *Milking It* features online and offline activities illustrating the economic, political, and moral issues involved, as well as attractive photos and illustrations.

www.oxfam.org.uk/education/resources/milking-it

**Stop the Traffik Secondary School Lessons**

These lessons prepared by stopthetraffik.org explore the issues of trafficking. www.stopthetraffik.org

**Where Does All Our Chocolate Come From?**

This lesson plan, prepared by Stop the Traffik, explores the issues of trafficking in the chocolate industry.

www.stopthetraffik.org

**Fair Trade and Ethical Spending:** Introduces fair trade by looking at specific consumer choices close to home. Cases of economic exploitation around the world point out the ethical dimensions of consumer spending.

www.citizenshipteacher.co.uk/index.asp?CurrMenu=398&amp;T=1244

## Multimedia

**Swap Your Choc**

A video about fair trade chocolate.
www.youtube.com/watch?v=qV4ywE_gPSU&feature=player_embedded

**Luckiest Nut in the World**

Supported by a mixture of animation and music, an animated American peanut takes the viewer through the stories of the cashew, brazil, and ground nuts—all of whom suffer as world trade is liberalized. But it is a different story in America, where the peanut is protected by tariffs and heavily subsidized and worth over four billion dollars a year to the American economy. The film helps people to understand how the pressure to embrace "free market" economics, with its promise of a wealthy, abundant marketplace, has actually driven many countries further into poverty.
www.globalissues.org/video/778/luckiest-nut-in-the-world

**Life and Debt**

A film about the effects of foreign aid in Jamaica.
www.lifeanddebt.org/

**The Corporation**

A Canadian film about the rise in power and global domination of the corporate institution and how this affects society.
www.thecorporation.com/film/about-film

**Iraq for Sale: The War Profiteers**.

A film about the American war machine.
https://www.youtube.com/watch?v=3Q8y-4nZP6o

**Together TV**

Video stories from people in the developing world in their own words.
www.togethertv.org/

**Human Development Trends**

A thematic package of animations for your lecture. Click and choose which of the nine sections you will use (available in many languages).
www.gapminder.org/downloads/human-development-trends-2005/

**Liberalization & Subsidized Agriculture vs. Poor Farmers (The End of Poverty)**

"This is a clip from the documentary *The End of Poverty* in which Joseph Stiglitz explains the impact of market liberalization on poor farmers when they compete with subsidized agriculture."
www.globalissues.org/video/782/stiglitz-agriculture

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# *Social Justice and Human Rights*

"Human progress is neither automatic nor inevitable. . . . . Every step toward the goal of justice requires sacrifice, suffering, and struggle; the tireless exertions and passionate concern of dedicated individuals."
– Martin Luther King Jr. (2010)

## Introduction

Social justice is a virtue or societal value that guides human interaction and, in particular, the fair distribution of society's benefits, advantages, and assets, not just by law and in the courts but in all aspects of society. Social justice is about securing rights but also about our responsibilities and their consequences. It focuses our attention on the relative position of different members of our society and on examining the disparities that might exist, the root causes of these disparities, and the opportunities for eliminating them. Understanding disparities requires us to adopt a systemic analysis of our social context—the institutions (e.g., legal, education, media), infrastructures, and belief systems that shape this distribution. Social justice is linked to the concept of *equity* and the just treatment of individuals in their own social context to meet their needs and reach their potential. It is also linked to the notion of *equality* as a socially just society is a "society for all" that provides an equal basis of opportunity. Fundamentally, it asks us to pose the question: "Is society just?"

The British Columbia Ministry of Education defines social justice as "the full participation and inclusion of all people in society, together with the promotion and protection of their legal, civil and human rights. The aim of social justice—to achieve a just and equitable society where all share in the prosperity of that just society—is pursued by individuals and groups through collaborative social action." (BCTF, 2014, p. 1)

Categories of historically marginalized or disenfranchised populations include the following:

- Men without property
- Women
- Indigenous peoples
- Youth and children
- Those who are homosexual, transsexual, transgender, or bisexual
- Racial groups
- Ethnic and cultural groups
- People with disabilities
- Peoples with "lower" social status / class
- Religious groups
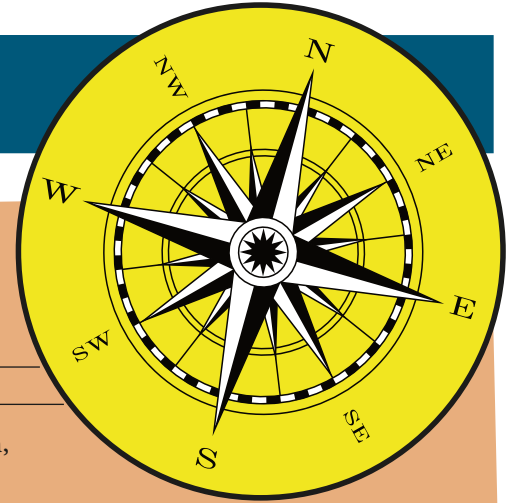
- Other species/ecosystems
- Future generations

Social justice is a broadly held value and is seen as an important goal of social progress. Canada as a society has adopted national and global commitments to social justice, including ratifying the *United Nations International Covenant on Economic, Social and Cultural Rights*, the *Universal Declaration of Human Rights*, and the *Canadian Charter of Rights and Freedoms*. Canadians have accepted a vision of social justice that supports the principle that all peoples, without discrimination, have the right to live in dignity and freedom and to enjoy the fruits of social progress and should, on their part, contribute to it (Office of the High Commissioner for Human Rights, 1969).

Social justice is linked to social action because the advancement of social justice is a political issue. Social action includes all actions taken by individuals or groups to achieve a political or social change, or to support a cause. The concept of social justice is a contested terrain because different individuals and social groups hold different perceptions of what is considered a "just society" and who should be allocated or distributed which societal benefits. For example, definitions of "just" and "fair" differ across political ideologies, as does the level of appropriate legislation and policies. The political left places emphasis on securing certain basic needs for all through a social welfare state, and this can extend to income redistribution through taxation and government programs including equal opportunity programs, anti-discrimination laws, and equitable access to food, clean water, education, and medical care. The political right embraces a just society but often contends that government programs cannot be the solution and, in fact, can aggravate injustice. Although there are common religious tenets about the dignity of individuals and ethics of responsibility and obligation to others, the interpretation and application of these principles and values can differ widely. The question remains: Who is responsible for ensuring social justice?

Historically, social justice has been hard fought and won. These struggles have been focused on supporting a marginalized community to achieve a level of access and recognition of their fundamental rights. Activists can adopt a wide range of tactics in achieving their goals, ranging from lobbying, press declarations, and referenda to demonstrations, petitions, occupations, rallies, marches, hunger strikes, blockades, boycotts, and sit-ins. Social action among some activists can extend to violent actions such as property damage, murder, arson, or theft, or can remain relatively peaceful and legal, such as adopting a commitment to non-violence. Social justice has been extended to an ever-growing part of the population, often as a result of activism in various forms. However, the call for social justice continues today because there is an ongoing need to build on past achievements and to extend rights and freedoms to other marginalized groups and communities.

# Social Justice and Human Rights

## Suggested Issues

- universal human rights (ethnicity, race, culture, class, religion, sexual orientation, gender, abilities)

- economic disparities, poverty, quality of life

- access to food, water, health care, education, employment

- child exploitation, human trafficking, and slave labour

- action for human rights

- forms of activism (the power of one, resistance to oppression, civil disobedience, conscientious objectors, boycotts, protests, grassroots movements, local community groups; citizen action groups, social networking and mobilization for change, popular culture, and the arts)

- labour movement and unions, strikes, non-violent revolution

- Indigenous rights and self-determination

- crime and punishment, penal systems and economic implications, ethical treatment of prisoners

- environmentalism and environmental organizations

- ethical treatment and human use of animals

- eco-activism

- NGOs and international collaboration, role of governments in international aid (e.g. CIDA, disaster relief, the economics of aid)

## Exploring the Issues

### Social Justice: Meaning and Implications

- Universal human rights (ethnicity, race, culture, class, religion, sexual orientation, gender, abilities)
- Status of women and children internationally: exploitation and trafficking
- Poverty and the perpetuation of global economic inequality
- Access to basic needs/quality of life: food, water, education, health care/sanitation
- Environmental justice: how the disadvantaged are affected by environmental degradation
- Human Rights in Canada: immigration, racism, stereotyping, discrimination

### Indigenous Rights

- legacy of oppression and colonialism
- the treaty process and Indigenous self-government
- access to services, access and recognition in education
- poverty and employment rates
- *United Nations Declaration on the Rights of Indigenous Peoples*

### Social Action, Activism, and Change

- forms of social action: non-violence, grassroots movements, new media and technologies
- historical progress: civil rights movement, international recognition of human rights
- international aid for development: NGOs and international collaboration, government cooperation, Canadian International Development Agency, International financial institutions

## Essential Questions

Social justice is an evolving concept that has real-world implications as to who has advantages, assets, and benefits in society. By asking questions about social justice, students are exercising their rights as citizens to be part of this discussion, and they can choose to take action as citizens so as to ensure fairness to those whom they deem to be marginalized or disadvantaged. As Plato wrote, "justice in the life and conduct of the State is possible only as first it resides in the hearts and souls of the citizens."

Essential questions related to social justice and human rights issues include the following:

- How should we define social justice?
- What gains have we made for social justice? What social injustice exists?
- What are some of the causes of social injustice? ...in our communities? ...in Manitoba? ...in Canada? ...globally?
- What are the relationships between poverty and injustice?
- What are the consequences of social injustice?
- How do you think we could work towards creating social justice? ...individually? ...as a community, here and globally?
- What is the role of the international community in creating and maintaining social justice?
- How are Indigenous peoples represented in contemporary society?
- How do historical relations, including colonialism, affect current Indigenous relationships? ...in Canada? ...globally?
- Which government and social structures discriminate against and which empower Indigenous peoples? ...in Canada? ...globally?
- What is social action? What is activism? Who is an "activist"?
- What tactics are activists using both here and internationally?
- How has social action changed over time?
- What kind of tactics would you use to create positive change for an issue you care about?

**DYK?**

## Did You Know…?

*UN World Day of Social Justice* is on February 20th each year, and it is aimed at contributing to the efforts of the international community in poverty eradication, the promotion of full employment and decent work, gender equity, and access to social well-being and justice for all. Participating governments have made a commitment to the creation of a framework for action to promote social justice at national, regional and international levels. They recognize that economic growth should promote equity and social justice and that "a society for all" must be based on social justice and respect for all human rights and fundamental freedoms.

www.un.org/esa/socdev/social/intldays/IntlJustice/

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"Nearly a billion people entered the 21st century unable to read a book or sign their names." (Bellamy, 1999).

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"In more than 70 countries, same-sex relationships are illegal. In nine countries, the penalty is death."
– Jessica Williams

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## In Canada and Manitoba

A recent Statistics Canada report projects that about one-third of the population will be members of a visible minority by 2031, with whites becoming the minority in Toronto and Vancouver over the next few decades.

In 2001, only 8% of the 25–34 age group of Indigenous peoples had a university degree, while 28% of all Canadians had one.

In 1996, 68% of Aboriginal youth were in school, compared to 83% of non-Indigenous youth.

In 2003, only 24% of Indigenous peoples under 25 were able to converse in an Indigenous language (Centre for Social Justice, n.d.).

There were 55,755 Indigenous people in Winnipeg in 2001, up from 45,750 in 1996, and comprising 8% of Winnipeg's total population. Winnipeg has the highest Indigenous population of any Canadian city (Anderson, 2003).

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## Thought-Provoking Quotations

"In the absence of justice, what is sovereignty but organized robbery?"
  – St. Augustine

"Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly."
  – Martin Luther King, Jr. (1960)

"Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world, whereas disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people...."
  – United Nations (1948)

"The (60th Anniversary of the Declaration of Human Rights) campaign reminds us that in a world still reeling from the horrors of the Second World War, the Declaration was the first global statement of what we now take for granted—the inherent dignity and equality of all human beings."
  – United Nations Secretary-General Ban Ki-moon, 2008

"Concerned that Indigenous peoples have suffered from historic injustices as a result of, inter alia, their colonization and dispossession of their lands, territories and resources, thus preventing them from exercising, in particular, their right to development in accordance with their own needs and interests; Recognizing the urgent need to respect and promote the inherent rights of indigenous peoples which derive from their political, economic and social structures and from their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources."
  – United Nations (2007)

"We are not myths of the past, ruins in the jungle, or zoos. We are people and we want to be respected, not to be victims of intolerance and racism."
— Rigoberta Menchu, Guatemala Nobel Peace Prize Winner, 1992

"The mobilization which is urgently needed to effect the transition within two or three years from a culture of war to a culture of peace demands co-operation from everyone. In order to change, the world needs everyone."
— Federico Mayor, Director General of UNESCO

"When I gave food to the poor, they called me a saint. When I asked why the poor were hungry, they called me a Communist."
— Dom Helder Camara, Brazilian Roman Catholic archbishop, author, and Nobel Peace Prize nominee

"Charity depends on the vicissitudes of whim and personal wealth; justice depends on commitment instead of circumstance. Faith-based charity provides crumbs from the table; faith-based justice offers a place at the table."
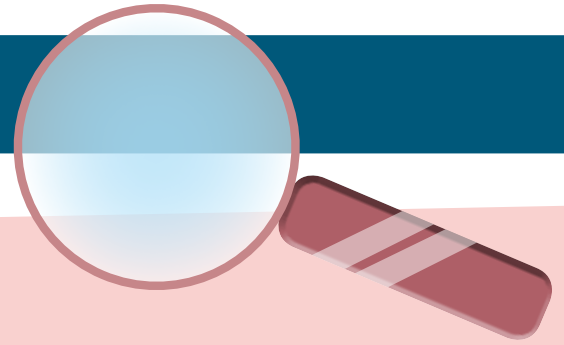— Bill Moyers

"If we were to wake up some morning and find that everyone was the same race, creed and color, we would find some other cause for prejudice by noon."
— George Aiken

"Under a government which imprisons any unjustly, the true place for a just man is also a prison...the only house in a slave State in which a free man can abide with honor."
— Henry David Thoreau

# Glossary

**Advocacy:**
Publicly supporting, recommending, and seeking to advance a particular cause or policy.

**Civil disobedience:**
The deliberate refusal to obey certain laws or governmental demands in a peaceful form of political protest in order to bring attention to an injustice.

**Colonialism:**
The policy or practice of settling another country or region, taking political control of it, and reaping the economic benefits while the original inhabitants are exploited and subjugated.

**Diversity**
The inclusion of a wide range of different characteristics or identities (such as different ancestries, religions, cultures, languages, religious beliefs, sexual orientations, or socio-economic backgrounds).

**Discrimination:**
The unjust treatment of particular groups of people because of their race, age, culture, religion, gender, or sexual orientation.

**Empowerment:**
The authority or power to accomplish something, particularly something of importance like the elimination of institutional injustices.

**Entitlement:**
The state of having a right to something that is not equally enjoyed by others.

**Equality:**
The quality of being fair and impartial so that all groups and individuals receive the same treatment.

**Equity:**
The quality of being fair and impartial while acknowledging group differences and working to improve outcomes for disadvantaged groups.

**Globalization:**
The increasing tendency of large businesses and other organizations to expand their international influence and operations as technology improves the connectivity among countries and regions.

**Grassroots:**
The local, common, ordinary people in a social organization or political movement, in contrast to its leadership.

**Human rights:**
"Human rights have been described as all the things we are entitled to be, to do or to have simply because we are human. Human rights describe how we instinctively expect to be treated as persons. Human rights define what we are all entitled to — a life of equality, dignity, and respect. A life free from discrimination." (CHRC)

**Oppression:**

Prolonged, unjust, and often systematic persecution, abuse, or maltreatment of individuals or groups

**Stereotype:**

A preconceived, oversimplified, and biased notion of the common characteristics of a particular social or cultural group.

## Resources

### Online

**Amnesty International**

Amnesty International is a global movement of more than 3 million supporters, members, and activists in more than 150 countries and territories who campaign to end grave abuses of human rights. Their vision is for every person to enjoy all the rights enshrined in the *Universal Declaration of Human Rights* and other international human rights standards. They are independent of any government, political ideology, or economic interest or religion, and are funded mainly by our membership and public donations.

www.amnesty.ca

Amnesty International's work on business and human rights:

www.amnestyusa.org/business/shareholder.html

**Oxfam**

"Oxfam Canada's mission is to build lasting solutions to poverty and injustice with a focus on improving the lives and promoting the rights of women and girls."

www.oxfam.ca

**The Centre for Social Justice**

"The Centre for Social Justice (CSJ) conducts research and provides education and advocacy on issues of equality and democracy."

www.socialjustice.org/

**Canadian Centre for Policy Alternatives**

"The Canadian Centre for Policy Alternatives is an independent, non-partisan research institute concerned with issues of social, economic, and environmental justice. Founded in 1980, the CCPA is one of Canada's leading progressive voices in public policy debates."

www.policyalternatives.ca

**Avaaz.org**

"Avaaz empowers millions of people from all walks of life to take action on pressing global, regional and national issues, from corruption and poverty to conflict and climate change. Our model of Internet organizing allows thousands of individual efforts, however small, to be rapidly combined into a powerful collective force."

www.avaaz.org

### Canadian Museum for Human Rights

"The Canadian Museum for Human Rights (CMHR) is the first museum solely dedicated to the evolution, celebration and future of human rights. Our aim is to build not only a national hub for human rights learning and discovery, but a new era of global human rights leadership."

www.humanrightsmuseum.ca/home

### Gladys Redak: A Woman on a Mission

"Radek is on a quest to seek justice for the countless number of Indigenous women who have either gone missing or have been murdered throughout Canada, and focuses especially on those who have been lost to violence or simply vanished along what has become known as the Highway of Tears, a notorious stretch of Highway 16 between Prince George and Prince Rupert."

www.ammsa.com/publications/ravens-eye/gladys-radek-woman-mission

### Craig and Marc Kielburger – Free the Children; Me to We

"Through leadership training at home and community development projects abroad, Free the Children empowers youth everywhere to make a difference.
Me to We is a social enterprise with a mission. It transforms consumers into world changers, one transaction at a time. Me to We sells socially conscious and environmentally friendly clothes, books, and music—as well as life-changing experiences. It also provides inspiring speakers, leadership training, and transformative travel experiences."

www.freethechildren.com/

### The Manitoba Human Rights Commission

"The Manitoba Human Rights Commission is an independent agency of the Government of Manitoba. It is responsible for carrying out the protections in Manitoba's *Human Rights Code*. Its staff includes mediators, investigators, and administrative support."

www.manitobahumanrights.ca//index.html

### Canada's International Human Rights Policy

"Canada has been a consistently strong voice for the protection of human rights and the advancement of democratic values, from our central role in the drafting of the Universal Declaration of Human Rights in 1947–1948 to our work at the United Nations today."

www.international.gc.ca/rights-droits/policy-politique.aspx?lang=eng

**TakingITGlobal**

This site is a platform for resources and discussion on global issues, including human rights.

www.tigweb.org/

**BC Teacher's Federation**

This site includes social justice learning resources and links.

http://bctf.ca/SocialJustice.aspx?id=6270

**United Nations Cyber School Bus**

The United Nations' Cyber School Bus education resource includes a useful human rights curriculum.

www.un.org/cyberschoolbus/

**Global Affairs Teacher Zone**

"Resources for young global citizens: learn more about making mothers and children healthier!"

www.international.gc.ca/development-developpement/youth-jeunes/teacher-enseignant.aspx?lang=eng

**The Diversity Toolkit**

This site is a portal to online resources, selected readings, and other tools to challenge racism and promote the acceptance of differences within schools and communities.

www.ucalgary.ca/dtoolkit/resources

**Youth for Human Rights**

Videos, music, and free curricula

www.youthforhumanrights.org/

**Oxfam Water Week**

This site provides U.K.-based resources on exploring water issues in a context of poverty and social justice.

www.oxfam.org.uk/Waterweek/TeachersResources/Learn

**Aboriginal Elders: A Grade 12 Unit Lesson Plan (UBC)**

"This unit plan is intended to give educators the tools to teach a comprehensive unit on the importance of elders in Aboriginal communities."

http://faculty.educ.ubc.ca

**Trading Trainers**

A game exploring labour and wage inequality, particularly focused on poor working conditions in Latin America.

http://learn.christianaid.org.uk/TeachersResources/secondary/trainers.aspx

### Impact of Collective Actions
Students plan collective action campaigns on issues they care about.
www.teachitcitizenship.co.uk/index.php?CurrMenu=1015&resource=14355

### Active Citizenship: Pressure Groups
Exploring the power of pressure groups and discussing positive changes that could be made to society.
www.teachitcitizenship.co.uk/index.php?CurrMenu=1015&resource=14606

### "Social Movements: A Summary of What Works" by Charles Dobson
"What affects the success of reform movements? What do the civil liberties, feminist, environmental, gay rights, anti-nuke, gun control, don't drink and drive, and living wage movements have in common? Research-based theory on social movements complements the limited, often personal, perspective of activists and organizers because it looks at larger numbers of people, longer periods of time, and major shifts in popular attitudes."
www.vcn.bc.ca/citizens-handbook/movements.pdf

### A History of Rights in Canada
This site provides links to resources about the history of human rights in Canada.
www.historyofrights.com/ngo.html

### The Change Agency
The Change Agency is a collective of activist educators and researchers. They work with community organizers to help people clarify their purpose and develop plans that will enable them to be heard, focus their energies, and achieve social and environmental justice outcomes.
www.thechangeagency.org/

### We Left Because We Had To
This resource helps students understand what the experience of a refugee might be like, and asks them to dispel some of the myths surrounding refugees.
www.teachitcitizenship.co.uk/index.php?CurrMenu=1015&resource=10104

### The Facebook Generation
"Students explore the definitions of identity, cohesion and community. They engage in a class debate about the effects of modern technology upon communities and think about ways in which identity, cohesion and community are changing within the Facebook generation."
www.teachitcitizenship.co.uk/index.php?CurrMenu=1015&resource=12704

**Living Experiment 2: Day of Social Justice, Social Psychology Network**
Students spend a day focused on addressing injustice.
www.socialpsychology.org/teach/daysj.htm

**Social Justice 12 Curriculum, BC Ministry of Education**
"The aim of Social Justice 12 is to raise students' awareness of social injustice, to enable them to analyze situations from a social justice perspective, and to provide them with knowledge, skills, and an ethical framework to advocate for a socially just world."
www.bced.gov.bc.ca/

## Multimedia

**"Greening the Ghetto" by Majora Carter**
"In an emotionally charged talk, MacArthur-winning activist Majora Carter details her fight for environmental justice in the South Bronx—and shows how minority neighborhoods suffer most from flawed urban policy."
www.ted.com/talks/lang/eng/majora_carter_s_tale_of_urban_renewal.html

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# Sustainable Agriculture

# Sustainable Agriculture

## Introduction

We are all eaters; we all require food. The way that we choose to meet our dietary needs will affect the future health of the planet. Agriculture is necessary to support Earth's human population; we now need to find and implement ways to create healthy and adequate food while protecting and preserving the natural resources that agricultural production depends on.

When we look at both the recent and distant agricultural past, we can find many examples of successes and failures that can guide our decision-making processes as both producers and consumers of food today. We can use this information to improve the sustainability of the food system, starting with agriculture.

## What is sustainable agriculture?

It is working towards a balance between food production activities and protection of the natural resources that agriculture depends on. In addition, it is the food system's ability to generate adequate income to compensate farmers for their time, labour, and risk while they produce agricultural products that are affordable enough for consumers to purchase.

Nutritional needs should also be considered and included when making decisions about sustainable food production (consider caloric, protein, and micronutrient needs).

## Three pillars of sustainability

There are three pillars of sustainability: economic, social, and environmental. All three must be considered and a balance among them established when creating and maintaining sustainable food systems.

- **Economic sustainability:** The ability to produce more food with the same inputs or to produce the same amount of food with fewer inputs.

- **Social sustainability:** Sustainable systems must provide desirable working conditions/lifestyles for those who are involved with agricultural production, and the food that is produced must be affordable for consumers.

- **Environmental sustainability:** Production practices must preserve and protect the natural ecosystem that farming depends on.

An example of these three pillars of sustainability in action can be found in Norman Borlaug's "Green Revolution." In the 1950s and 1960s, Borlaug bred new rust-resistant dwarf wheat varieties that, when fertilized with nitrogen, increased grain yield worldwide by 150% between the years 1950 and 1992. The new dwarf wheat varieties put more energy into large seeds than tall straw, which created larger yields per acre. Yields were also improved because the new varieties were less susceptible to the wheat disease known as rust. However, Borlaug's system also required heavy use of nitrogen fertilizer and fossil fuels, and a high degree of mono-cropping.

Looking back we can now see that the Green Revolution was not as *economically sustainable* as once believed. While the system was able to realize a substantial increase in terms of yield per acre, it required larger amounts of purchased inputs such as nitrogen fertilizer and fossil fuels. The gains in yield were made by converting natural resources (like fossil fuels) into fertilizers to produce food.

This in turn influenced the *social sustainability* of the Green Revolution. Because farmers had to purchase more inputs (mainly during the early crop planting and establishment phase), their risk grew. Higher spring costs often meant that margins for profit were smaller during good years, and in years of crop failure the loss was much larger than before.

Finally, the *environmental sustainability* of farming was affected by the Green Revolution. The reliance on nitrogen fertilizer increased the amount of fossil fuels used to create edible food, and this altered the energy-use ratio negatively. The preference for mono-cropping in this system has also reduced on-farm biodiversity.

In conclusion, sustainability was not a driving concern at the time of the Green Revolution; instead, the goal was simply to *increase agricultural production*. From this example, we can see that increases in agricultural productivity often come at the expense of the people involved with production and the natural ecosystem. (This is an example of achieving food security at the expense of agricultural sustainability.)

## How the Green Revolution became unsustainable

Future increases in yield are not sustainable if they cause any of the following negative impacts:

- Degradation of natural resources
- Loss of biodiversity
- Spread of pests and diseases across natural and political borders that can affect agricultural production

It is important that future innovations consider the three pillars of sustainability, rather than just focus on increasing agricultural production levels.

Today, we can see that agriculture has come up against some *hard limits*, like a finite land base for agricultural production (agricultural land in both the new and old worlds has been maximized). This means that previous ways to increase global food production (like cultivating new/additional acres of land) are no longer available as choices: we need to find new ways to produce food that respect these hard limits.

The large global population is extremely dependent on modern agriculture to meet its food needs, and the ways in which those needs are met will be vital to the long-term health and success of our global population. Agriculture can help to both mitigate and adapt to climate change, but it is also a contributor to climate change.

The sustainability of global agricultural production has changed. The gradual intensification of agricultural production to meet the food needs of a growing population has decreased agriculture's sustainability over time. Perhaps working with producers to adopt the first of many *small steps* towards improving the sustainability of agricultural production will help to reverse this trend.

### Changes in Agricultural Systems and the FAO

Food and agricultural systems are currently undergoing large-scale changes and are becoming increasingly

- globalized
- concentrated
- industrialized
- science-intense

The above changes in agricultural systems can

- create barriers for small and medium-sized farms to access sustainable knowledge and tools
- make it difficult for both men and women to access sustainable knowledge and tools equally
- result in the growing trend towards proprietary biotechnology in agriculture, where its use comes with protection instruments that prevent dissemination to farmers who would benefit

Currently, only 2% of the people living in North America are directly involved in food production, with many more involved in the food transport and processing sectors. Agriculture makes up 8% of Canada's GDP (this number is higher in Manitoba).

The FAO (Food and Agriculture Organization) is a specialized agency within the United Nations that is focused on all aspects of food and agriculture, including food production, sustainability, food security, and nutrition.

The FAO's vision is of a "world free from hunger and malnutrition, where food and agriculture contribute to improving the living standards of all, especially the poorest, in an economically, socially and environmentally sustainable manner." (da Silva, 2017)

The main goals of the FAO include

- ending poverty, hunger, and malnutrition
- enabling sustainable development in agriculture, fisheries, and forestry
- combatting and adapting to climate change

To become more sustainable, the FAO advises that agriculture must

- meet environmental challenges
- adopt greener practices
- ensure social and political sustainability within production systems

The FAO believes that agriculture will achieve these goals by

- adopting innovations that are able to increase productivity and efficiency while using resources sustainably
- making better use of energy to create food

# Sustainable Agriculture

## The Characteristics of Sustainability

Agricultural sustainability could improve by

- decreasing greenhouse gas emissions
- decreasing water use and water pollution
- decreasing soil erosion and soil degradation
- increasing the health of soils
- decreasing the use of inputs (especially finite resources like phosphorus)
- decreasing the heavy reliance on fossil fuels (fossil fuels are used to create nitrogen fertilizer, run machinery, transport food products long distances, etc.)
- improving the resiliency of crops to adapt to changing climate conditions
- increasing agricultural efficiency by decreasing the amount of energy used for each calorie produced.
- decreasing the reliance on monocultures in large-scale agriculture systems/ increasing biodiversity in all agricultural systems
- increasing the efficiency and profitability of farming (decreasing food lost during production; finding accessible markets and establishing fair prices)
- increasing conservation efforts for natural areas within and adjacent to agricultural areas (eliminating deforestation to create new agriculture land; protecting and preserving natural wetlands and grasslands; planting and maintaining shelter belts, etc.)
- practising various forms of soil conservation and restoration
- improving the efficiency of fertilizer use and reducing its environmental impact by practising the 4Rs
- employing innovative sustainable cropping systems that increase yields while improving soil health
- employing innovative livestock systems focused on maximizing resource efficiency while decreasing negative environmental impact
- making better use of waste products (both human and animal) and recycling the nutrients needed for food production (e.g., using manure as crop fertilizer)
- adopting more sustainable production systems
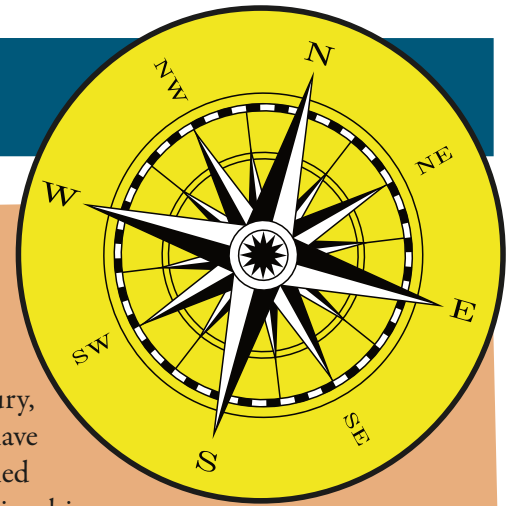- protecting and preserving ecosystem services

Sustainable systems are characterized by the following traits:

- Excellent resource-use efficiency
- Promotion of diversification
- Consideration for climate change adaption and mitigation

### Incorporating technology to improve efficiencies in production

Agricultural production can be made more efficient by

- utilizing GPS technology with precision agriculture machinery

- using new data collection tools to make evidence-based decisions (e.g., drones provide great visual information; combines provide extensive data to help make production decisions; scales and ear tags provide detailed feeding and health information for selecting efficient animals, etc.)

- finding efficiencies through advances in genetic science, particularly in breeding plants and livestock where fewer inputs are required to achieve the same yields

- conserving wetlands and grasslands

- planting and maintaining shelter belts

- avoiding production in marginal and vulnerable areas (e.g., riparian areas, steeply sloped areas, etc.)

## Sustainable Agriculture

## Exploring the Issues

- Agriculture has been a key player in the global pattern of continual yet unsustainable growth. The more predictable a food supply is, the bigger a population it can support. This sets up the following cycle: an increase in agriculture yields causes a decrease in the cost of food, which causes an increase in population size, which then requires an additional increase in food production. The cycle continues, but because Earth is a finite size, continued human population growth is not sustainable in the long term.

- Population increases and intensified land use for agricultural production have often been achieved at the expense of the surrounding natural ecosystem. This scene has been replayed many times globally since agriculture began, and many former civilizations have ended (in part) because of unsustainable agricultural production practices, including the Sumerians at Ur, Easter Island (Rapa Nui), and Greenland's Vikings.

- It is important to remember that not all civilizations ended with the intensification of agricultural production. Some civilizations successfully farmed the same area and lands for thousands of years while maintaining/preserving the natural resources. These include China, Egypt, and parts of Northern Europe. By looking at these practices, both in the past and how they have been adapted for present use, we can learn about various strategies to improve agricultural sustainability.

- Over the past century, humans have transformed their relationship with the natural world, greatly increasing their use of Earth's natural resources. This has led to environmental degradation over time, and some of that degradation will not be reversible.

- The global trend is *towards increasing scarcities of our natural agricultural resources*, including land, water, forests, fish, and biodiversity. With the intensification of human activities, there have been increasing pressures on the world's natural agricultural resources. This is starting to cause negative changes in Earth's ecological functioning. The increasing global population will require new strategies to maintain/increase food production while taking steps to protect and preserve the natural environment.

- Global food demand is rising and changing, with increased demand for livestock products, fish, fruits, vegetables, oils, and sugar. Despite these trends towards increased global consumption, there are also a significant number of people who are undernourished or who have micronutrient deficiencies. All people need access to food at reasonable prices, and this must be a consideration of agricultural sustainability; food needs to be affordable, especially for the poorest and most vulnerable populations.

# Sustainable Agriculture

- Global agricultural production has increased threefold from 1960–2015 due to increases in production from Green Revolution technologies, including a heavy reliance on fossil fuels, water, and other agricultural inputs, and expansion of new agricultural land. These practices have decreased the sustainability of agricultural production.

- Global yield increases have now slowed in terms of bushels per acre or kilos per hectare. Future increases in yield are predicted to be due to the development of adapted and improved varieties of crops and getting these new varieties to farmers who can benefit. This raises the social issue of the trend towards proprietary biotechnology within agriculture, as these protection instruments prevent advances in food production from being shared by all. Privatization of knowledge and tools that can improve the sustainability of agriculture means that these are not available to all farmers

- Modern agriculture is *more extensive* (advances in technology allow for fewer people to cultivate more acres of farmland) and *intensive* (high use of inputs) than historic agriculture was. As a result, agriculture's negative impact on the natural environment is now visible in a variety of ways.

- Currently there is competition over natural resources for both food and non-food products (e.g., competition over forests, which act both as the cleaners and keepers of water for agriculture, and as providers or raw goods in the form of wood for loggers; competition over land for various uses including agriculture, city expansion, infrastructure, mining, etc.).

- Disparity exists among global farmers and international consumers. It is important that the interests of the poorest farmers and poorest consumers are considered. Everyone needs to be able to create, sell, and buy food at reasonable prices for the system to be truly sustainable.

- The world is currently able to produce adequate food to satisfy the needs of the global population, but waste, cost, and transportation prevent food from being equally distributed to all.

- Reducing food loss and waste would lessen the need for increases in agricultural production, as 40% of the food produced does not end up being consumed.

## Essential Questions

- What is the proper use of land? In the past, hunter-gatherer food systems have been viewed as inferior to agriculture. This reasoning was used as a claim for acquiring Indigenous land for agricultural purposes in Canada. Because it was perceived that Indigenous occupants were not making full use of their treaty land, amendments to the *Indian Act* in 1918 gave Canada's Department of Indian Affairs the power to lease or give band land to non-Indigenous people for the purpose of cultivation.

- How can farmers increase agricultural production and protect the natural resources they are dependent on while improving sustainability? (Note: Agriculture produces more than just food for people; it also produces fuel, fibre, and feed.)

- What is the role of the urban consumer in improving agricultural sustainability? Urban issues include the following:
  - Informed decision making in food purchases
  - Excessive food waste
  - Proper recycling of nutrients found in agricultural products (how to recycle nutrients back into the agriculture system)

- What are the connections among agricultural sustainability, food safety, and food security? (Understand how these ideas are interrelated, yet completely different.)

- What is done in the short term to address food security must not undermine the long-term objectives of food production and natural resource sustainability.

- Countries that engage in food trade must balance their needs for food security against other nations' needs for security and sustainability.

- Is access to food and freedom from hunger a basic human right? What would food systems look like if this right were extended to all people? What would that mean for producers and consumers? What would have to change in our current food system?

How can the sustainability of various agriculture production practices and systems be evaluated? What criteria should be included? What scale should be used? How much of the food system should be evaluated? (Look at the criteria developed by McDonald's for its Sustainable Beef Verification Program and compare this with the 10 challenge areas created by the FAO for improving agricultural sustainability.)

**DYK?**

## Did You Know?

- Agriculture is a basic human endeavour. It developed independently on every continent with human habitation (except Australia).

- By 5000 years ago, the majority of people living on Earth had made the transition from eating mostly wild foods to eating mainly domesticated ones. Today there are very few people that rely on hunting and/or gathering for the majority of their food; the world now relies on agricultural production for almost all of its food needs.

- The New World staple crops of maize and potatoes produced twice the calories per acre when compared with the Old World staples of wheat and barley, while the Old World cereal crops were an ideal match for the growing conditions of the South American Pampas and the North American prairies. Although agriculture developed independently at numerous sites worldwide, it has now become one big system that covers much of the planet.

- Agricultural practices may not achieve a completely neutral environmental impact. Despite improvements in sustainability and increased protection of the natural resources involved, agriculture may still have a negative impact on the health of the planet (but this doesn't mean that humans will stop producing food—the first priority for civilizations).

- There are a wide range of farms worked, commodities created, and agricultural production practices employed in Manitoba and globally, and each will have a different environmental footprint. The sustainability of a farm's production practices depend partially on the regenerative power of the land/ecosystem it is situated on/in. Because of this, each situation must be treated individually with regards to sustainability (there is no one right solution for improving sustainability for all farms).

- Both McDonald's and the UN's FAO have been working on developing criteria to assess the sustainability of agricultural production.

- Agroecology is the science of applying ecological concepts and principles to the design and management of sustainable food systems. It is seen by many as the key to future agricultural sustainability because it addresses issues such as poverty, climate change, and food insecurity. (FAO, Nov 2016)

Agroecology uses ecological theory to design individualized food systems that address the following:

- agriculture community ecology (soils, plants, animals, markets)

- nutritional ecology

- human ecology

## Thought-Provoking Quotations

"Farming achieved quantity at the expense of quality: more food and more people, but seldom better nourishment or better lives."
– Ronald Wright (47)

"There is no more essential commodity than food. Without food, people perish, social and political organizations disintegrate, and civilizations collapse."
– Norman Borlaug (Hesser)

"Civilizations have developed many techniques for making the earth produce more food—some sustainable, others not. The lesson I have read in the past is this: that the health of the land and water—and of the woods, which are the keepers of the water—can be the only lasting basis for any civilization's survival and success."
– Ronald Wright (105)

"The natural resource base and ecosystem services are the foundation of all food and agriculture systems, and their protection is a guiding principle in their use."
– José Graziano da Silva (FAO, 2013)

"Land has always been a defining element of Aboriginal culture. Land contains the languages, the stories, and the histories of a people. It provides water air, shelter, and food. Land participates in the ceremonies and the songs. And land is home.... For non-natives, land is primarily a commodity, something that has value for what you can take from it, or what you can get for it."
– Thomas King
(Note: King later clarified that all people can feel deep attachment to the land, and that by *non-natives* he meant "North America's societal attitude towards land".)

"Much progress has been made in reducing hunger and poverty and improving food security and nutrition. Gains in productivity and technological advances have contributed to more efficient resource use and improved food safety. But major concerns persist. Some 795 million people still suffer from hunger, and more than two billion from micronutrient deficiencies or forms of over nourishment. In addition, global food security could be in jeopardy, due to mounting pressures on natural resources and to climate change, both of which threaten the sustainability of food systems at large. Planetary boundaries may well be surpassed, if current trends continue."
   – José Graziano da Silva (FAO, 2017, vii)

"High-input, resource-intensive farming systems, which have caused massive deforestation, water scarcities, soil depletion and high levels of greenhouse gas emissions, cannot deliver sustainable food and agricultural production. Needed are innovative systems that protect and enhance the natural resource base, while increasing productivity. Needed is a transformative process towards 'holistic' approaches, such as agroecology, agro-forestry, climate-smart agriculture and conservation agriculture, which also build upon indigenous and traditional knowledge. Technological improvements, along with drastic cuts in economy-wide and agricultural fossil fuel use, would help address climate change and the intensification of natural hazards, which affect all ecosystems and every aspect of human life."
   – Food and Agriculture Organization of the United Nations (FAO, 2017, xi)

"The average Canadian household saves more than $4,000 on their annual food bill because farmers use plant science technologies to help protect their crops from insects, weeds and diseases."
   – CropLife Canada, 2017

"Canada will become the trusted global leader in safe, nutritious, and sustainable food for the 21st century."
   – The Advisory Council on Economic Growth

## Making a Difference

*How do consumers have an impact on production practices in agriculture?*
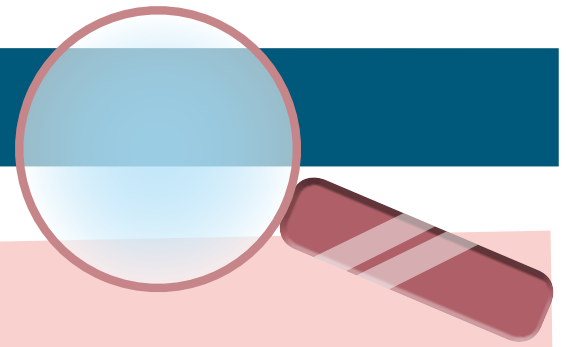
"Eating is an agricultural act."
–   Wendell Berry

Manitoba egg producers respond to consumer desires and values with a variety of whole egg products. Look at the shelves of eggs in any supermarket/grocery store and you will notice there are six main choices (beyond size and shell colour) that are available to consumers. The first four describe differences in the hens' housing. The first five have the same nutritional profiles.

- **"Classic" (i.e., traditional cage-laid eggs):** This system, which replaced open cage-free systems to improve hen welfare and farmer care, is the least expensive option and the production system that is most commonly used on Manitoba farms. It involves small flocks of hens living together in plain cages.

- **Enriched systems/nest-laid eggs:** This system features larger cages (more room per hen) and includes features to encourage natural chicken behaviour (e.g., a perch system, scratch pads, a private area for laying eggs, etc.).

- **Free-range systems:** Free-range systems have no cages. Large numbers of hens live together in indoor barns, their food and water is available freely, and there are nest boxes along the perimeter for hens to lay their eggs. Chickens have access to the outdoors when weather conditions allow. There are few free-range egg production systems in Manitoba due to our cold winters.

- **Organic:** In this system, the hens that lay the eggs were fed organic feed.

- **Omega-3 eggs:** Omega-3 eggs are the only eggs with any nutritional difference, as they have been fortified with two different omega-3 fatty acids: DHA (docosahexaenoic acid) and ALA (alpha linolenic acid). These acids have been linked with the proper development and maintenance of brain cells. This is accomplished by feeding the hens flaxseed.

The Egg Farmers of Manitoba organization watches egg sales closely to determine consumer trends, and it works with the egg producers of the province to meet consumer needs. If one of the previously listed egg types begins to become more popular with consumers, farmers are encouraged to adopt the new production style. In this way, consumers have a direct influence on the production practices of Manitoba egg farmers when they choose a type of egg at the supermarket.

This choice at the food purchasing level can also extend into other production systems that have a greater impact on sustainability. (Look at the differences in sustainability of two different production systems: beef from feed lots versus grass-fed beef).

## Glossary

**Agricultural products:**
The wide range of resources produced through agriculture, especially crops and livestock.

**Agricultural production:**
The process of growing crops and livestock.

**Crops:**
A cultivated plant that is grown as food, such as wheat, fruit, or vegetables.

**Cropping:**
The process of harvesting crops, as part of agricultural production.

**Cultivate:**
Growing plants or animals for food, as part of agricultural production.

**Domesticated:**
A plant or animal that is cultivated for food, as part of agricultural production.

**Economies of scale:**
Cost savings as a result of increased production.

**Extensive agriculture:**
Agricultural production that requires less labour, fertilizer, and capital than typical systems of agricultural production.

**Intensive agriculture:**
Agricultural production that requires more labour, fertilizer, and capital than typical systems of agricultural production.

**Food safety:**
Methods to produce, handle, prepare, and store food in ways that prevent food-borne illness.

**Food security:**
Having consistent and reliable access to adequate, affordable, and nutritious food.

**Livestock:**
Cultivated animals used in agricultural production.

**Lodging:**
Damage to the stems of grain crops, making them difficult to harvest. It is often caused by a combination of a weak crop and conditions such as rain, wind, hail, topography, and poor soil.

**Organic:**
Agricultural products produced without the use of of chemical fertilizers, growth stimulants, antibiotics, or pesticides.

**Production practices:**
The systems used to grow agricultural products.

**Profit:**
The money left over from the sale of products after all expenses from their production have been subtracted.

**Sustainability:**
Meeting our own needs without compromising the ability of future generations to meet their own needs.

**Wild:**

Living and growing in a natural environment (i.e., not domesticated).

**Yield:**

To produce or provide; the result of production.

## Resources

### Online Resources

Food and Agriculture Organization of the United Nations (FAO). *The Future of Food and Agriculture: Trends and Challenges*. New York, NY: FAO, 2017. Available online at http://www.fao.org/3/a-i6583e.pdf.

> *"How can we achieve FAO's original vision of a world free from hunger and malnutrition?* The report sheds some light on the nature of the challenges that agriculture and food systems are facing now and throughout the 21st century, and provides some insights as to what is at stake and what needs to be done. What emerges is that 'business as usual' is no longer an option but calls for major transformations in agricultural systems, in rural economies and in how we manage our natural resources."

Manitoba Agriculture. *Agricultural Climate of Manitoba*. https://www.gov.mb.ca/agriculture/weather/agricultural-climate-of-mb.html (date accessed—2017-12-05)

> "This reference tool is for agricultural producers and agribusiness. Using a series of maps, it describes the agricultural climate of Manitoba, based on the climate in the region over a 60-year period (1929 to 1988)."

### Print Resources

Manitoba Agriculture. *Field Crop Production Guide*. Winnipeg, MB: Province of Manitoba, 2017.

> "The *Field Crop Production Guide* published by Manitoba Agriculture offers current production information on Manitoba crops such as barley, oats, rye, triticale, wheat, canola, flax, sunflowers, faba beans, field beans, field peas, lentils, forage crops, buckwheat, canary seed, caraway, coriander, corn, mustard, soybeans and some of Manitoba's newest crops such as amaranth, azuki bean, borage, chickpea, dill seed, fenugreek, lathyrus, lupin, mung bean, proso millet, quinoa, safflower and spelt."

Manitoba Agriculture. *Soil Management Guide*. Winnipeg, MB: Province of Manitoba, 2017.

> "This guide focuses on three key principles:
>
> ■ Keeping the soil in place by reducing tillage practices
>
> ■ Maintaining or improving soil quality parameters, such as organic matter, bulk density, earthworms, and desirable soil structure
>
> ■ Managing and protecting water supplies"

Wright, Ronald. *A Short History of Progress*. Toronto, ON: House of Anansi Press, 2004.

> This book is a series of five lectures by Ronald Wright about societal collapse. He concludes that the collapse of human civilization is imminent if we do not act now to prevent it: "now is our chance to get the future right."

Diamond, Jared. *The World Until Yesterday: What Can We Learn from Traditional Societies?* New York, NY: Penguin Books, 2013.

> This book surveys the history of human societies to answer the following question: "What can we learn from traditional societies that can make the world a better place for all of us?"

Diamond, Jared. *Guns, Germs, and Steel*. New York, NY: W.W. Norton, 1999.

> This book argues that the modern world has been shaped by geographical and environmental factors, and that food-producing societies were able to use that technological advantage to conquer other cultures.

Diamond, Jared. *Collapse: How Societies Choose to Fail or Succeed*. New York, NY: Penguin, 2014.

> Diamond examines ancient societies, including the Anasazi of the American Southwest and the Viking colonies of Greenland, as well as modern ones such as Rwanda, and explains why they failed.

Montgomery, David R. *Dirt: the Erosion of Civilization*. Berkeley, CA: University of California Press, 2007.

> Montgomery traces the history of agriculture, showing how historical societies collapsed or moved on when they exhausted the soil. He then argues that moving on is not an option for future generations.

# References

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King, Thomas. *The Inconvenient Indian: A Curious Account of Native People in North America*. Toronto, ON: Doubleday Canada, 2012.

Wright, Ronald. *A Short History of Progress*. Toronto, ON: House of Anansi Press, 2004.