

CREDITS

BC TEACHERS. SLS: STUDENT LEADERSHIP IN SUSTAINABILITY has been developed in collaboration with BC secondary school teachers since 2009. We gratefully acknowledge the following certified teachers for their outstanding contributions: **Philippe (& Suzanne) Barois, Raphael Dumais, Shelley Green, Brenda Kvist, Denise North, Barbara Raphael, Ethelwyn Smith and Shayne Vollmers.**

EDUCATORS ADVISORY. We sincerely appreciate the on-call, on-going valuable guidance provided by our SLS Advisory: **Garnet Ayers, David Derpak, Rob Ferguson, Glenn & Darryl Fieber, Sarah-Jane Granholm, Ron Hall, Michael Iachetta, Julie Johnson, Brenda Kvist, Denise North, Kevin Millsip, Lynne Potterlord, Alain Raoul, Brian Taggart and Greg VanVugt.**

TEACHER FEEDBACK. Each year an upgraded edition is produced, reflecting the excellent feedback from students and teachers using the materials in a variety of courses across BC. *We thank you all!* Please see the 2015 research results, teacher stories and testimonials on our website.

THE TEAM. Our staff is supported by university interns and volunteers who work tirelessly to research and format these materials. Special thanks to this year's teammates: Communication Coordinator, **Jen Holden**; Program Assistant, **Emily Hansen**; and BTCEA Interns **Brandon MacDonald, Eugenia Serrano and Damini Jain.** We gratefully remember all previous contributors whose creative work and wisdom informed our emergent process, including **Meta Patterson, Sue Damen, Tahia Ahmed and Sophie Thomas**; graphic designers **Chris Croda, Enoch Tee, Stina Brown and Katie Maasic** and for the Aboriginal Wisdom Quotes from honoured Métis elder **Aline LaFlamme.**

GUIDING LIGHTS. Sharing our dream for an environmentally sustainable and socially just citizenry are two remarkable women who deserve our deep bows of appreciation: **Erin Leckie**, Program Manager and outdoor educator who has bravely worked beside me for over four years, generously giving her organizational acumen, creative ideas, and gracious energy to this remarkable project and **Megan Eadie**, Production Coordinator and environmental scientist who holds our ground of web programming and a myriad of quality supports with cheerful willingness and patience. Their light helps SLS shine brightly!

SLS: STUDENT LEADERSHIP IN SUSTAINABILITY

© Copyright 2010 – 2016

Be The Change Earth Alliance

All rights reserved; Printed in Canada

Proceeds from the license of these materials support the continued work of this charitable organization. Thank you for respecting that no part of this publication may be used or reproduced in any manner whatsoever without written permission, except in the case of brief quotations embodied in critical articles and reviews. For permissions and further information, please contact Be The Change Earth Alliance.

Educators who have registered and licensed this program have the right to reproduce materials as outlined within their agreement. Please contact Be The Change Earth Alliance for further information in this regard.

PUBLISHED BY

Be The Change Earth Alliance

949 West 49 Avenue, Vancouver, BC, V5Z 2T1

www.bethechangeearthalliance.org admin@bethechangeearthalliance.org

WELCOME to SLS: Student Leadership in Sustainability

BE THE CHANGE EARTH ALLIANCE is delighted to welcome you to the 2016 edition of SLS: STUDENT LEADERSHIP IN SUSTAINABILITY. As a BC-based Canadian charitable organization, we are dedicated to supporting humanity's shift to a globally sustainable world view through education that helps us connect our values to actions and global sustainability issues to local solutions. Our structured inquiry approach helps participants understand the issues, clarify their values and develop a critical thinking process for making discerning choices that can last a life time.

A youth adaptation of our community education program was launched in 2009 at the request of an impassioned participant who wanted this valuable process to be brought to her daughter's school. The resulting Student Leadership in Sustainability (SLS) program has been developed in an emergent and iterative process with teachers and students over the past several years. We are ever grateful for this creative 'research-develop-test-refine' ongoing collaboration.

In 2015 we received very encouraging feedback from our teacher survey and interviews that can be accessed in full on our website. Highlights include: **90% of respondents believe** that students **developed critical thinking skills** and an **understanding of sustainability issues** and of the **connection between personal actions and global issues**. **90% agreed** that their students **responded well to SLS**, **89% indicated** there was **valuable class discussion** and **100% agreed** that students indicated **passion and concern for their topic**. **96% of students strongly agreed** that they **learned a lot about their topic** by completing the SLS Action Pack. It seems that our years of hard work have been worth it!

We know that school can be a challenging rite of passage for students. It can also be a pivotal time for youth to explore their values, discover their human agency and find their rudder to create a meaningful life. We have profound respect for the teachers that can guide them in this empowering inquiry process. We see these teachers as the "trim tab" that can turn our 21st century Titanic world view around. The SLS program is our offering to support teachers in this critical role.

The modular lesson plans and student Action Packs support inquiry into a broad range of sustainability topics. They work flexibly within various curricula while building deep literacy and higher level thinking. From Socials, Science, Home Economics, Leadership, Social Justice and Ecology to Planning 8-10, Media Arts and English, teachers have used SLS materials to augment their course with social relevance.

I am very pleased to have led the BTCEA team on the creation of these resources. As I continue on my PhD of Education in Curriculum Design and Implementation, I draw my inspiration from the teachers willing to empower their students to take leadership in this momentous social change movement for global sustainability. May SLS support you well in what Thomas Berry calls this "Great Work."



Maureen Jack-LaCroix,
Creative Director, BTCEA



Table of Contents

WHY USE SLS: STUDENT LEADERSHIP IN SUSTAINABILITY?	1
VERSIONS OF SLS	2
SLS BLENDED	2
SLS DISTANCE	2
LÉDD: Le leadership étudiant vers le développement durable (SLS FRENCH)	2
SLS + SUSTAINABLE RESOURCES 11	3
FEATURES OF SLS	3
VALUES BASED MODULES	3
TEACHER'S KIT	3
FURTHER EXPLORATIONS	4
LIBRARY OF LINKS	4
GLOSSARIES	4
STUDENT SELF-EVALUATION AND GOALS	4
TAKING ACTION SURVEY	5
CAREER OPTIONS	5
CURRENT EVENTS	5
PEER EVALUATIONS	5
STUDENT FEEDBACK SURVEY	5
OVERVIEW OF SLS BLENDED PROGRAM	6
LESSON PLANS	7
HOW TO USE SLS	17
REGISTRATION	17
SUSTAINABILITY VALUES	17
TURNING AN ACTION PACK INTO A LESSON PLAN	17
SAMPLE SLS UNIT OUTLINE	19
WAYS TO SUPPORT STUDENTS	20

WHY AN ACTION CIRCLE?	21
CIRCLE AGREEMENTS	22
BC COURSE CONNECTIONS TO SLS – AT A GLANCE	23
PEDAGOGICAL MODELS FOR TEACHING SUSTAINABILITY	25
1. LEARNING LOCALLY – COMMUNITY AS CLASSROOM	25
2. INTEGRATED LEARNING	25
3. ACTING ON LEARNING	26
4. REAL WORLD CONNECTIONS	27
5. CONSIDERING ALTERNATIVE PERSPECTIVES	28
6. INQUIRY	29
7. SYSTEMS THINKING	30
8. INTEGRAL LEARNING METHOD	30



WHY USE SLS: STUDENT LEADERSHIP IN SUSTAINABILITY?

The old adage *“Tell me and I forget, show me and I remember, involve me and I understand,”* is a guiding principle in the SLS approach. SLS helps students not only understand today’s overwhelming global sustainability issues; it also connects them to local solution-based actions.

The structured **INQUIRY-BASED APPROACH** of SLS enables teachers to address these 21st century issues in a way that helps students develop **CORE COMPETENCIES** in **CRITICAL THINKING, CREATIVE COMMUNICATION** and **PERSONAL/SOCIAL RESPONSIBILITY** so they can take their place in society as values-inspired, action-empowered citizens able to make discerning choices.

<p>STRUCTURED INQUIRY</p> <ul style="list-style-type: none"> ✓ Choose Issue ✓ Explore ✓ Reflect ✓ Share Ideas ✓ Take Action 	<p>The world needs us to start clarifying our values and questioning the assumptions of our industrial world view.</p> <p>SLS starts with students taking a look at their World View before and after the unit to see for themselves if their world views change during their inquiry process.</p> <p>SLS helps teachers introduce a broad global sustainability value with Videos and explore students’ background knowledge with a choice of Classroom Activities.</p> <p>Students can then choose from a variety of Action Packs to explore a specific issue they are interested in. That is when their deep inquiry really begins.</p>
<p>DEVELOP CRITICAL THINKING by...</p> <p>Exploring and Reflecting</p>	<p>Each Action Pack has an online Library of Links of pre-researched websites and videos and Research Questions that guide students to identify key issues in their exploration.</p> <p>A Local Activity helps students connect local practices to the global issue.</p> <p>SLS helps students reflect upon their global and local research by asking So What?</p> <p>Students develop higher level thinking with Critical Thinking Questions that ask them to consider the environmental, social and economic implications of the issue.</p> <p>The Costs & Benefits of change are explored, both personally, for humanity, and for the natural world.</p> <p>Stakeholders is an alternative to Costs & Benefits for higher level students in the “Further Explorations” section.</p>
<p>DEVELOP CREATIVE COMMUNICATION by...</p> <p>Sharing Ideas</p>	<p>Students discuss their Action Pack project with their families and friends, especially when completing their Local Activities and Actions.</p> <p>By working collaboratively in small Action Circles students are able to hear different points of views with their peers.</p> <p>Class Presentations encourage creative ways to present their findings. Whatever means they use, they restate their inquiry question, describe their investigations, interpret the results and present their conclusions.</p>
<p>PRACTICE PERSONAL & SOCIAL RESPONSIBILITY by...</p> <p>Taking Action</p>	<p>Taking Action is required at least twice in the Action Pack. In this way students experience taking personal responsibility as part of the Inquiry process into major social change issues.</p> <p>Teachers love that every Action Pack comes with an Action Survey, providing students with a choice of relevant personal, household, school and community actions they can to take.</p> <p>The survey is completed online at the end of the unit, enabling teachers and BTCEA to see what actions have resulted from the SLS experience.</p>

VERSIONS OF SLS

A few different versions of SLS: Student Leadership in Sustainability have been developed over the years. All versions share key approaches and pedagogies, but are delivered in different ways. All SLS teachers and students have their own password protected membership accounts on the BTCEA website.

Currently all versions of the SLS program offer Action Packs that contain elements of self-evaluation on perspectives and world views, global research, local activities, critical thinking exercises, presentation and action circle opportunities, aboriginal and general wisdom quotes, stakeholder consideration, student action surveys and engagement with various audiovisual resources. The differences between the Action Packs provided in each version of the program are identified below.

SLS BLENDED

SLS was originally offered as a “blended” design, combining the best of teacher facilitated class discussions and student presentations with independent student research referencing videos and articles online as well as research activities in the home or community. Student inquiries are deepened and supported through the structured process of the Action Packs and the opportunity to collaborate in small groups. Teachers are supported with extensive lesson plans and handouts for classroom activities. The SLS Blended version is always the first to be updated and augmented, as most of our teachers are using this version of SLS. Some schools are choosing to go paperless by using the writable PDF Action Packs and others are distributing the student materials as handouts which can be downloaded and printed.

SLS DISTANCE

Starting in 2012, BTCEA has collaborated closely with Brenda Kvist of the Vancouver Learning Network to adapt the SLS materials for individual student work online. This enabled VLN to incorporate all of SLS Distance into their Planning 10 curriculum for the past three years. Distance students complete an Action Pack of their choice without needing the facilitation of an in-class teacher. The Action Packs have been modified to be an individual exploration and include a careers focused section.

The Distance Action Packs open with a multi-media introduction to the larger sustainability value followed by a short world view and perspectives survey and a general reflection activity. These elements replace the Lesson materials that the Blended version of SLS covers. In order to engage the students in a “learning through teaching” experience, Distance learners complete a Blog Post instead of making a class presentation on their topic. The SLS Distance version can be incorporated into a variety of distance course offerings; just as SLS Blended is used in a variety of classroom courses.

LÉDD: Le leadership étudiant vers le développement durable (SLS FRENCH)

In 2014, BTCEA collaborated with University of Ottawa to translate SLS into French. Two BC French teachers, Shayne Vollmers and Robert Paquin, supervised the translation students. BC French teacher Philippe Barois and BTCEA board member Suzanne Barois completed a final edit of all LÉDD documents. Our most recent version of LÉDD is a translation of the 2015 Blended materials with some supplementary materials still in English. LÉDD materials include detailed Lesson Plans, Action Packs and Answer Keys, Student World View Surveys, a Bingo Activity and Presentation Rubric. In addition to the

English research links used for the Blended version, LÉDD includes at least three French research links per Action Pack.

SLS + SUSTAINABLE RESOURCES 11

Sustainable Resources 11 has been created in collaboration with Social Studies teacher Michael Iachetta from the Delta school district. This multi-disciplinary distance course integrates the role of technology, science, resource management, social and environmental issues, and career opportunities in the fields of Agriculture, Mining, Forestry, Fishing and Energy. SR11 looks at global and local examples of these resource-based fields and connects students to ways in which they interact with the topics. Students complete four Action Packs, a World View Survey and Assessment Project and then end with SLS Related Careers and an Action Project that is presented online.

FEATURES OF SLS

VALUES BASED MODULES

SLS is comprised of five independent and interchangeable modules that focus on significant values for a sustainable world view. Each module has teacher-only resources, 5-8 student Action Packs and additional materials. The Blended and French versions also have a sixth module called "Innovation" that is formatted differently and is focused on students preparing to take on a larger project based on one of the other five values.

Customize to suit your course.

This modular design enables teachers to mix and match Action Packs to suit their course curriculum and students' interests. SLS is currently used in a wide range of Socials, Science, Home Economics, Planning and French courses.

How long does it take to deliver?

Based on past experience teachers have devoted anywhere from 2 – 10 classes to SLS with the average being 5 classes. The process generates lots of student interest and classroom discussion!

TEACHER'S KIT

A module specific Teacher's Kit is available for classroom teachers (both the Blended and LÉDD versions) while teachers using the Distance version of SLS can request access to any document listed to use in their planning. Since these documents are mostly teacher support materials, not all documents have been translated into French.

*Resources that are available in French are indicated with an **F**, black line masters for student handouts are indicated with a **BLM**, and when a version of a document is included within the Distance Action Packs this is indicated with a **D**.

Teacher's Kits contain:

- Planning for SLS highlights adapting, timing and planning options for SLS delivery
- "My Values" Lesson Plan
- Lesson Plan with time estimates, materials needed, glossary of terms & inquiry question (**F**)

- Student World View Survey & Calculator **(BLM, F, D)**
- Discussion Activities to explore students level of knowledge:
 - Traditional or “Web” Brainstorm Questions
 - BINGO Activity **(BLM)** and Discussion Guide **(F)**
 - THERMOMETER Activity & Discussion Guide
- Action Pack Summaries **(BLM, F)**
- Unit Outline **(BLM)**
- Class Presentation Marking Rubric **(BLM, F)**
- Peer & Self Evaluations **(BLM)**
- Related Careers & Current Events Questions
- The “Science Behind” handouts to describe the science of complex topics such as Climate Change
- SLS Achievement Award **(BLM)**
- Aboriginal & General Wisdom Quotes

FURTHER EXPLORATIONS

Further Explorations include optional materials that can be used to augment any Action Pack. The following features can be found below the “The Essentials” section in any version of SLS on the Action Pack pages.

- Related Careers **(BLM, D)** & Current Events links for each Action Pack
- Stakeholders for each Action Pack **(BLM, F)**
- Student Self-Evaluation **(BLM)**

LIBRARY OF LINKS

A well-researched Library of Links has been compiled for each Action Pack, representing age appropriate information and perspectives from Canadian and international websites and videos. Every effort has been made to present various points of view. Links are updated semi-annually and we appreciate receiving feedback from students and teachers if a link is broken. In LÉDD there are several links in French and most are in English (*section is called Recherche*). We are always open to receiving more French links from teachers and students.

GLOSSARIES

The Glossary helps make complex topics more accessible and ensures all students can discuss and comprehend various points of interest in the Action Packs.

STUDENT SELF-EVALUATION AND GOALS

The Self Evaluation is an optional resource that provides students with an opportunity to reflect upon the goals outlined in their Action Pack and to evaluate their personal progress. Self-evaluation is a valuable skill for mature students. Goals are at the beginning of each Action Pack and appear once more in the format of student presentations.

TAKING ACTION SURVEY

There is an Action Survey in each Action Pack to support students in choosing two or more Actions at varying levels of complexity. In the Blended and French Action Packs, the Survey helps students commit, reflect on, and track their progress with topic-related actions and calculate the points they accumulate. In the Distance Action Packs, the Taking Action and subsequent Reflection sections are more focused on helping students set goals and think thoughtfully about their accomplishments and provide further accountability that the face to face interactions otherwise do.

CAREER OPTIONS

The BC Ministry of Education would like teachers to integrate career options into the courses they are delivering. That is not always an intuitive process. SLS 2016 now provides SLS Related Careers for each Action Pack and a question that will direct students to this optional resource.

CURRENT EVENTS

Every Action Pack has a number of links to articles on current events relating to that Action Pack topic! Generic Current Events questions can be assigned to direct students to the Current Events links. Teacher's suggestions for links to other related current events are always welcome.

PEER EVALUATIONS

Students are asked to clearly present concise and compelling concepts in their presentations. Peer evaluations help students focus on the presentations to ensure they have grasped the key points.

STUDENT FEEDBACK SURVEY

SLS has been developed through an emergent and iterative process based on the feedback of teachers over the past several years. Direct student feedback is invaluable to BTCEA for the continued honing of this body of work and to the teachers using SLS in different ways and contexts. A link to the Student Feedback Survey will be emailed to all registered students. We ask teachers to encourage their students to complete this survey and to assure them that their opinions are respected and considered.

OVERVIEW OF SLS BLENDED PROGRAM

MODULE	INQUIRY AND GOALS	ACTION PACKS
A) Value HEALTH Feel Good, Be Healthy	How can taking action to improve my personal health help create a healthier planet? Students will gain understanding of personal and community impacts of the foods they eat and the toxic products used in their homes. They will also explore alternatives that are healthier and safer for both themselves and the environment.	1 – Food Additives 2 – GMOs 3 – Organics 4 – Fresh & Local 5 – The Story of Meat 6 – Toxicants 7 – Plastics
B) Value CONSCIOUS CONSUMPTION Buy Less, Be More	How do our current consumption and disposal habits impact people and the planet? Students will become aware of their consumption patterns and the impact on themselves, our communities and our environment; they will develop awareness of marketing goals and their environmental impact, to help them determine what they can change in their daily lives to positively affect this situation.	1 – Pre-Cycling 2 – Costly Trends 3 – Disposables 4 – Recycling 5 – All Packaged Up 6 – Into The River 7 – Organic Waste 8 – Acidic Oceans
C) Value CONSERVATION Save Energy & Natural Resources	How can we value Earth's limited resources in our personal and industry choices? Students will gain awareness of our natural resource and energy consumption and the impact this has on our environment. They will discover ways they can make changes in their daily lives to positively affect this situation through the conservation of natural resources.	1 – Transportation 2 – Paper Cuts 3 – Bright Energy 4 – Saving Water 5 – Being Chill - Heating Up 6 – Ocean Wise 7 – All That Glitters 8 – Oil
D) Value CONNECTION Re-Connect	How does feeling connected to myself and to others, in a human and natural community contribute to global sustainability? Students will gain awareness of the importance of connecting with ourselves, our families, our communities and nature; they will make efforts to create these connections in their lives.	1 – Living My Values 2 – Me & You 3 – Family Roots 4 – My 'Hood 5 – Count Me In 6 – Nature Nurture 7 – The Big Picture
E) Value JUSTICE Go Green & Just	How can we be environmentally and socially just in our personal choices and industry practices? Students will gain insight into the multitude of injustices and inequalities being inflicted on the planet today, not just toward people, but toward animals and other life; they will begin to explore some of the positive steps people are taking to address these issues and ways they too can generate positive change.	1 – Environmental Justice 2 – Water Privatization 3 – Animals & Us 4 – Gender Equality 5 – Local Economy 6 – Poverty 7 – Food Security 8 – Nature's Rights
F) Value INNOVATION Change the School, Change the World	How can I create a school or community project that will support global sustainability in a measurable way? Students will learn brainstorming and collectively choose priorities by focusing on systems within their own school that need sustainability upgrading; they will create feasibility studies on their top choices, and complete short and long term goals.	1 – Health 2 – Consumption 3 – Conservation 4 – Connection 5 – Justice

LESSON PLANS

INQUIRY QUESTION frames the exploration for the unit and connects the global issue to personal choices. All student Action Pack inquiry questions within this module relate to this over-arching inquiry.

ABORIGINAL WISDOM QUOTE offers another world view to consider as we address this global sustainability issue.

TEACHER GOALS for each Value module are clearly outlined.

VALUE HEALTH – Lesson Plan

"Know those things that lead to your well-being and those that lead to your destruction."
 ~ Sacred Tree Teaching, Chief Phil Lane, Jr.

INQUIRY: How do our choices in food and household products impact our personal and environmental health?

GOALS: To inspire and empower students to:
 Inquire into their values and world view on food choices and household products;
 Explore industry practices and social systems and develop critical thinking;
 Discover ways to take personal responsibility for healthy consumption habits,
 Creatively communicate their ideas and suggestions to others.

All Action Packs involve in-class surveys, online research, local activities, charting, critical thinking, taking some action and in-class presentations. In-class and out-of-class time is suggested for all Action Packs. If the activity requires special considerations in addition to computer access, it is noted below.

STUDENT ACTION PACKS	LOCAL ACTIVITY CONSIDERATIONS
1. Food Additives	Analyze item from home or Field Trip to Grocery Store
2. GMOs	Tracking Food for 3 days
3. Organics	Community Interview or Field Trip to Local Organic Farm
4. Fresh & Local	Community Interview or Field Trip to Farmers' Market, CSA or Community Garden
5. The Story of Meat	Research based
6. Toxicants	Analyze item from home
7. Plastics	Tracking interactions for 1 day

MATERIAL NEEDED:
 Teachers often choose to print one copy per student or per group; less paper is needed with continuous access to computers in class. All materials listed are downloaded with teacher or student account.

First Lesson Flow

- Student World View Survey: kept by teacher
- Lesson Videos: order DVD or online access
- SLS Unit Outline: for students clarity
- Action Pack Summaries: helps students choose or provide online access each class
- Computer, projector or TV & DVD player

Student Work

- Computer Lab: for second class, research online

Second Lesson Flow

- Peer Evaluations
- Presentation Assessment Rubric: for students
- Student World View Calculator
- Student Leadership in Sustainability Award

Lessons can be completed in 2-10 classes depending upon the depth to which you explore the topics; teachers averaged 5 classes in 2014/15. See SLS Unit Outline in the Teachers Guide for a suggested class flow.

SLS STUDENT LEADERSHIP IN SUSTAINABILITY

A.1

© 2012-15, Be The Change Earth Alliance

Local Activity Considerations outlines things that are good to know in advance, for each of the Action Packs.

Plan ahead and have the BLM handouts and needed materials ready for each lesson.

HEALTH TEACHER'S KIT: Lesson Plan

TERMINOLOGY
Each Action Pack has its own set of Glossary Terms. The terms below may be used in class discussions:

Agribusiness The business of agricultural production.
Factory Farming The practice of raising farm animals in confinement at high stocking density.
Food Additive Substances added to foods to preserve and enhance taste and appearance.
GMO A genetically modified organism has had its genetic structure altered using genetic engineering.
Herbicide A substance that is toxic to plants, used to destroy unwanted vegetation.
Local Food Food produced near where it is sold... within 50 km or within the same province.
Monoculture A classification that regulates the use of chemical pesticides, herbicides, and fertilizers.
Organic A substance used to kill insects and other organisms harmful to plants or animals.
Pesticide A synthetic, easily molded material typically made from petroleum.
Plastic A synthetic, easily molded material typically made from petroleum.
Preservative Substances that delay food spoilage.
Processed Food: Food that is pre-packaged or altered before sold, often containing artificial colours, preservatives or derivatives of whole foods, such as corn.
Toxicant: A man-made poisonous substance NOT from biological sources (i.e. Bisphenol A). The term "toxin" is often used to refer to toxicants and toxic substances, which is incorrect.
Toxin: A poisonous substance from biological sources (i.e. snake venom).

Action Packs: Resources, directions and process for student inquiry
Action Circles: Student groups working on Action Packs
Student World View: Pre and post Survey questions for students
Circle Agreements: Group rules, agreed to by each group member

BE THE CHANGE TERMS

Teacher's Action Circles Reference Sheet
Assessment Comments of Action Circle's collaboration efforts and participation

Value HEALTH	Members of Action Circle	Assessment Comments of Action Circle's collaboration efforts and participation
Topic & Name of Action Circle (if appropriate)		

The **KEY TERMINOLOGY** referred to in the Lesson Videos is summarized with brief definitions to promote deeper literacy comprehension. Students will also have **Glossary of Terms** in each of the Action Packs to identify words that may expand their vocabulary.

A simple but effective Chart to track students in each Action Circle and the Action Pack they are working on.

HEALTH TEACHER'S KIT Lesson 1

Value HEALTH	Activity	Lesson Description	Teacher
Time Estimate 10 min	Student World View	Students do a quick written reflection using the "World View" survey. This is meant to be done at the very beginning of class while students are arriving and getting settled. The glossary of terms to assist students with unfamiliar concepts or words is on the back of the World View Calculations, which they won't get until after completing the unit. Either print as handout or have available to reference on board. Teacher's choice to discuss terms and concepts or withhold discussion to minimize influencing their current world view survey. This survey helps students establish their personal connection and starting point on the topic. They will be able to look back and see if and how their views may have shifted during their inquiry process.	PRE-WORLD VIEW survey Have copies for each student
5 min	Define Sustainability	<ul style="list-style-type: none"> The Brundtland Report for the World Commission on Environment and Development defined Sustainable Development as: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." SLS adaptation defines Sustainable Choices as: "Social and personal practices that meet the needs of the present without compromising the ability of future generations to meet their own needs." 	Write SLS definition of "Sustainability" on board
	Introduce Value Inquiry	<p>Big Question for HEALTH VALUE</p> <ul style="list-style-type: none"> How do our choices in food and household products impact our personal and environmental health? 	Write Value Inquiry Question on board
25 min (If all played back without discussion)	Video Exploration	<p>Video Options & correlating Action Packs</p> <ul style="list-style-type: none"> The Story of Food (6:00) – A1, A2, A4, A6 The Matrix (4:00) – A5 Toxins (2:30) – A6 Organic Farmer Boy (5:00) – A1, A2, A3, A4, Plastics (5:30) – A7 Action in your School (3:00) – Creating Change <p>Lesson Videos available on BTCEA website, in each Value module under "Additional Materials" or order DVD. Teachers only can access Lesson Video Notes to help discussion and/or to choose videos.</p> <p>To facilitate discussion, we have a few optional activities to augment this lesson plan. They encourage open sharing and active listening. Choose any format that appeals to you and work</p>	DVD + player or online computer; Projector & screen or large TV
20 min	Discussion Activity on Value of		

LESSON DESCRIPTION briefly outlines why and how to deliver each activity.

TIME ESTIMATES for each segment are indicated for each section in the detailed Lesson Plans.

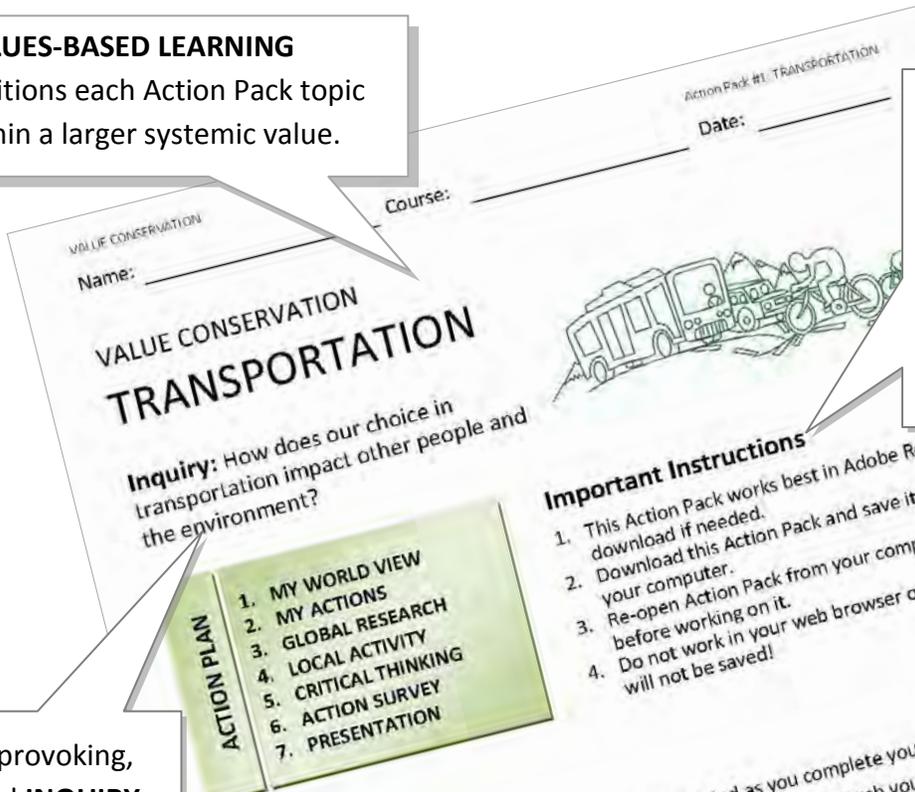
TEACHER column indicates what handout or equipment to have ready

ACTION PACKS – “BLENDED” EXAMPLE

VALUES-BASED LEARNING

positions each Action Pack topic within a larger systemic value.

Completing these Action Packs can be totally **paperless!** Providing **Website and Downloading Instructions** is helpful in supporting student success.



A thought provoking, open-ended **INQUIRY QUESTION** frames the exploration into the topic.

GOALS highlight why students are doing this inquiry project and the skills they can develop in this process.

An optional **SELF-EVALUATION** is available online so students can assess if these goals were met.

VALUE CONSERVATION

Action Pack #1: TRANSPORTATION

Glossary

Below are some key terms you will need to understand as you explore the inquiry of this Action Pack. They will appear in **bold italic** in your Action Pack. The simple definitions below are provided for ease of reference.

Air quality	A measure of how clean the air is, including the amount of pollutants or greenhouse gases found within it.
Carbon footprint	The amount of carbon dioxide and other greenhouse gases that a person, organization, building, product, etc. produces; used as a measure of their effect on the environment.
Climate Change	Long term changes in weather patterns; in this case due to human activity that is occurring at a rate faster than many species can adapt.
Economic Impact	The effect of an activity on the wealth and resources of a country or region. Often referred to in terms of gross domestic product and services.
Ecosystem	A community of interacting organisms and smaller organisms and their physical environment.
Emission	Release of a substance into the atmosphere or environment.

The **GLOSSARY** helps make complex topics more accessible while increasing students' reading literacy.

VALUE CONSERVATION

1. MY WORLD VIEW

We all have different 'world views', depending upon our personal values, life experiences and cultural background. Ideally, our 'world view' grows and changes as we gain more knowledge, experience and consider other points of view.

Please complete the **WORLD VIEW & VALUES SURVEYS BEFORE** and **AFTER** completing this Action Pack.

Aboriginal wisdom presents another world view and values to consider:

This tool introduces the concept of a "**WORLD VIEW**" and provides an opportunity for further discussion. Students are able to measure if they have experienced any shift in their world view throughout their inquiry process.

"We must walk on this Mother Earth in a good, kind, soft and gentle way"

~War Dance, (Lawrence Perry) Shuswap Nation

2. MY ACTIONS

Our personal integrity develops when we act in alignment with our values and our world view. We often see shifts in our actions as our knowledge about topics grows. You are asked to take action through-out this project to try out what it is that you want to change habits.

Complete 6.1 in your ACTION PLAN on page C1.13 of this Action Pack BEFORE completing anything else in your ACTION PLAN. Only complete the actions you already do by giving yourself DURING your Action Pack inquiry. Tick off your choices in Column B. B. AFTER you have completed the actions that now either! Just do them.

different Actions to try out. Tick off your choices in Column C, but don't do them until you have completed Column A at this time.

Each Action Pack has an **ABORIGINAL WISDOM QUOTE**, compiled by *Aline LaFlamme, Metis Elder*. They present another world view and honour the wisdom of indigenous traditions that connect deeply with the land.

ACTING ON LEARNING and experimenting with personal change can provide an impactful learning experience. It is valuable to give students positive solutions they can implement. This increases their **Personal** and **Social Responsibility competency**.

VALUE CONSERVATION
 Name: _____ Course: _____ Date: _____
 Action Pack #1: TRANSPORTATION

3. GLOBAL RESEARCH

Important information on this topic has been pre-researched for you. Register online with the URL that your teacher will provide. Then check out the websites and videos on the Be The Change Earth Alliance website.

User Name: _____ Password: _____

Information from these web links will answer your Research Questions in Section 3, inform your responses to the Critical Thinking Questions in Section 5, and support the Presentation you will be preparing for Section 7.

Discuss and compare different perspectives with other members of your group.

Research Questions

Based on what you have learned in your research, answer the following questions. Group discussions are encouraged but answers to the research questions are to be written independently. To avoid plagiarism, your answers must be in your own words. Please list the links you used to answer your questions.

3.1 Name 3 *Greenhouse gases* & what human activities create them.

With this “**Blended**” learning approach, internet research provides a **global perspective**, and keeps things exciting and **current with Audio/Visual learning**.

Did you know...?
 The US used 18.83 million barrels of oil per day in 2010 and 19.18 million in 2011.

Library of Links

The following links are organized by relevant Research Question. They are also labelled as either Canadian (CAN), International (INT), American (US), or British Colombian (BC). The links are labelled into Level 1 or Level 2, where level 2 links are slightly more complex and give more insights into the topic.



The Library of Links contains:

- Research Links
- Local Activity Links
- Helpful Optional Links
- Current Events

Research Links

These links will inform your Research Questions and Critical Thinking Questions.

Q3.1 CAN - What is organic farming? Find out what they do and what they don't do. [Link 1 L1](#)

INT - 4 myths about organic farming to explain why it isn't as black and white an issue as you thought. [Link 2 L1](#)

Students develop digital research skills by reviewing a variety of vetted websites, articles and videos in the **LIBRARY OF LINKS** accompanying every Action Pack. Research questions direct them to key points they should consider.

VALUE CONSERVATION

Name: _____

Course: _____

Action Pack #1: TRANSPORTATION

Date: _____

4. LOCAL ACTIVITY



How does this global topic relate to you personally?
 How often do you travel in an... each day? Complete
 the following activity and...
 part of the equation.

The **LOCAL ACTIVITY** provides **hands-on, experiential learning**, using the **community as classroom** to discover how we are part of the issue and the **system** that needs to shift.

1. Have each member of your Group record their travel in... (Monday).
2. Then calculate the number of kilometers you travelled for each trip using Google...
3. Fill in the RESEARCH CHART for each trip (See example chart below)

REMEMBER:

- Multiply # of km by 2 for a round trip.
 - If you carpooled divide # of km by # of passengers.
 - Write down the trips you took using alternate modes of travel (walk, bike, skateboard).
4. Once you have calculated your weekly total use the Emissions Calculator (<http://www.falconsolution.com/co2-emission/>) to determine your annual carbon emissions.
- NOTE:** You will need the Make, Model and Year of the vehicle you use most often to complete this calculation.

Research Chart

4.1 Complete Research Chart (use note paper if more space is needed)

Where did I go?	#km by car (x2 if return trip)	Divide by # of passengers if we carpooled	#km traveled by alternate mode (foot, bike, bus)
Example Monday:			
music lessons	5 km X 2 = 10	10km	0
School	0	0	2 x 2 = 4km
Soccer game	6 km X 2 = 12km	12 km/ 3 passengers = 4	0
TOTAL	22km		4km

© 2012-15, Be The Change Earth Alliance

SLS: STUDENT LEADERSHIP IN SUSTAINABILITY

RESEARCH CHARTS help students record their observations in a meaningful way.

So What?

4.2 Compare your activity results with others in your group. Write down one or more similarities and differences that you found. Label similarities S: and differences D:

4.3 What are some conclusions or observations you gained from this activity?

Self-reflection on learning and comparing and contrasting results with their teammates helps students develop **critical thinking** and **communication skills**.

Taking Action

Choose ONE or MORE actions from your ACTION SURVEY in the back of your Action Pack, check it off in Column B and record it below. Do the action(s) now.



My chosen action is: _____

I will complete it by: _____

SLS: STUDENT LEADERSHIP IN SUSTAINABILITY

C1.9

Be The Change Earth Alliance

Students have a few opportunities to **TAKE ACTION** throughout their inquiry process, helping students **connect with local solutions**, use their **community as a classroom**, and exercise their **personal and social responsibility competencies**.

VALUE CONSERVATION

Name: _____

Course: _____

5. CRITICAL THINKING

Global *sustainability* issues are complex, and considering different points of view can give us a stronger understanding in order to change for the better.

Critical Reflections

To avoid plagiarism, write your own reflections.

5.1 'Stakeholders' are individuals or groups that could be impacted by reducing fossil-fueled transportation. Include a few natural world systems, etc.

STAKEHOLDERS IN YOUR OWN WORDS.

Groups (companies, communities, etc.) who have concerns. Please list some of the stakeholders that could be impacted by reducing fossil-fueled transportation. Include a few natural world systems, etc.



After exploring the topic globally and personally, students are prepared to **think critically & creatively**, to consider the "pros & cons" of change actions and other questions.

COSTS & BENEFITS ask students to consider how their doing or not doing an action impacts the **Three Pillars of Sustainability**. Students are asked to apply their new knowledge and think creatively about the various stakeholders impacted by

Students are asked to think **locally to globally** and **consider themselves** as part of the **shifting systems**.

Costs & Benefits

5.3 What if people (including me) chose to use less fossil fuel for transportation? What would the costs and benefits be?
 1. To me, personally (health, knowledge, values, etc.)

Environmentally (plants, animals, ecosystems, locally to globally)

3. Socially (people and communities, locally to globally)

4. Economically (financial systems)

5.5 What if I was to use fossil free modes of transportation? What would I need to do to take this action (e.g. research, time, connecting with others, something I'd need to stop doing, etc.)?
 List at least 3 specific examples.

- 1.
- 2.
- 3.

C1.12

SLS: STUDENT LEADERSHIP IN SUSTAINABILITY

A **Stakeholders** question and chart is also available online to replace Cost & Benefits for a higher level student that can work from a more **systemic** perspective.

VALUE CONSERVATION _____ Course: _____ Date: _____
 Action Pack #1: TRANSPORTATION

6. ACTION SURVEY

Our actions are directly related to our world view.
 Complete the following ACTION SURVEY step by step.

6.1 BEFORE starting your Action Pack, indicate which actions you already do by giving yourself

# of points	=	If this statement is true for you or not
0 points	=	Not true
1 point	=	Sometimes true
2 points	=	I have done this (not something one does regularly)
3 points	=	True most of the time

points in COLUMN A. Add these up in the Total for COLUMN A

6.2 DURING your Action Pack inquiry, set your goals and tick off the Actions y in COLUMN B... and then do them!



Suggested actions move through **expanding circles of influence**, from personal to family, school and community. This choice meets the learner where they are ready to take action.

Goal setting! What action would you like to do? Some teachers have students just complete this column for an easier survey. There are many ways to set up this assignment for differentiated learning.

Action Survey		A	B
What Actions have I taken before? What Actions will I start taking?		Done before Action Pack	I intend to do this Action ✓ the
Personal Actions	1. I bike or walk to these destinations 1. _____ each week. 2. _____		<input type="checkbox"/>
	2. I have not used a car to get around this week.		<input type="checkbox"/>
	3. I have researched more environmentally friendly vehicle choices, such as hybrid, electric or bio-diesel vehicles.		<input type="checkbox"/>

School and Community Projects encourage students to take part in **systemic change** and **peer education**.

Household Actions		A	B
What Actions have I taken before? What Actions will I start taking?		Done before Action Pack	I intend to do this Action ✓ the
Household Actions	6. I have arranged carpooling with family or friends to reduce multiple trips or single passenger trips.		<input type="checkbox"/>
	7. I have planned with my family the most efficient ways to get our errands done, to avoid using a car more than we need to.		<input type="checkbox"/>
	8. I have talked with family members about more fuel efficient vehicles or cars such as hybrids, electric or diesels that can run on biofuel.		<input type="checkbox"/>
School Actions	9. I have convinced a family member or friend to walk, bike, rollerblade, skateboard or take public transportation to an activity with me.		<input type="checkbox"/>
	10. I have helped set-up a bike program at my school.		<input type="checkbox"/>
	11. I have helped set-up a car-pool program at my school.		<input type="checkbox"/>
Community Actions	12. I have arranged a bike to school week at my school.		<input type="checkbox"/>
	13. I have supported others in learning how to build and fix their bikes.		<input type="checkbox"/>
	14. I have gone to a rally or talk associated with fossil fuels and learned how to take additional action.		<input type="checkbox"/>
15. I have joined or created a local recycling project (such as Recycle-A-Bicycle) to get more community members biking.			<input type="checkbox"/>
16. My customized and related action (teacher approved): _____			<input type="checkbox"/>
What Actions have I taken?			<input type="checkbox"/>
Starting Points Sustainability		A Before	C After
Total Points Sustainability			

When completed online the **ACTION SURVEY** can measure the impact of all student actions and teachers can see when and what actions their students have taken. You can also gamify this in your class if you like.

VALUE CONSERVATION

7. PRESENTING YOUR EXPERIENCE AND KNOWLEDGE

Your final Action Pack assignment is to give a presentation to your class summarizing your thoughts on the Inquiry you did in this Action Pack. This is your chance to share what you have learned and invite your peers to take action!

Presentation length: 5 - 15 min.
See ideas for your presentation below. Ask your teacher for further details.
Make sure your presentation includes:

- I Inquiry Process**
 - State the Inquiry question that you explored. Is this an important question we all need to be asking ourselves?
 - List the top 3 most interesting facts that you learned in your research.
 - Share the experience and results of your local activity
- T Critical Thinking**
 - Name some key **stakeholders** or **ecosystems** and their concerns or interests
 - List some ways we can approach this issue more sustainably (both industry and personal)
 - Share new ideas or conclusions you gained from completing the Action Pack.
- PS Taking Action**
 - What actions did you take?
 - What it was like to take personal action
 - Share your personal experience exploring this topic, inspire others to take action
 - Suggest ways that others can take action
- C Creativity**
 - Engage your class for 5-10 minutes of a piece of paper the entire class.
 - Be creative and share your ideas.
 - Share your ideas with your class.
 - Be prepared to share your ideas.

SLS: STU



Class Presentations enable students to **learn through teaching** which deepen their understanding. Teachers become the **'Guide on Side,'** instead of the **'Sage on the Stage,'** and may be learning about these ever changing topics as well.

VALUE CONSERVATION

Creative Format Options

Action Pack #1: TRANSPORTATION

- A VERBAL TESTIMONIAL** Acting as a stakeholder (person, community, animal, river, etc) you tell your personal story about how important this topic is to you and how it can affect your life, positively and negatively. You could do it like a talk show where one interviews the other about your experience.
- GRAPHIC DEPICTION** Drawings that are labeled and explain the information you learned in the research. This could be pictures, images, a storyboard, timeline, and includes how you will make changes in your life.
- MOCK DEBATE** You and your partner present two points of view, or two stakeholders, showing the facts that support both sides in the issue.
- PAINTING OR COLLAGE** An artistic representation of what you learned in the research and how you will make changes in your life.
- MOCK NEWSCAST** You are a TV journalist on the scene of an environmental situation and you are interviewing both sides of the issue. For example, trees being cut down, industry's waste going into a river, protesters with signs at a government office.
- NEWSPAPER** Create a newspaper page with various articles about both sides of the issue. Include a cartoon that is relevant, a letter to the editor about the issue and the scientific facts. Include what changes are needed to help with this issue.

Suggesting various format options, SLS encourages students to **creatively share** their inquiry process. This welcomes **different kinds of learners** and can inspire some engaging presentations.

HOW TO USE SLS

REGISTRATION

BTCEA provides full school access to the SLS materials for an annual licensing fee of \$750. This cost can be covered by BC schools who apply for the Healthy Schools Network Inquiry grant. They have approved SLS as a valuable program to assist student inquiry into healthy lifestyle choices.

Any teacher at a school can apply for this grant and BTCEA is also available for school Pro-D workshops to assist other teachers in the school to bring this resource into their classrooms. This is ideal for cross-curricular integration of sustainability education.

SLS teachers registered with BTCEA are provided with their own online account where they set up their personalized password. Once their password is set up they have access to all the Blended SLS teacher and student materials in English and French. Additionally, each school is eligible to receive a printed copy of this Teachers Guide to SLS, a DVD of Lesson Videos, and their choice of one Value Module Teacher's Kit and Action Packs. All additional materials are available online for printing.

Registration forms are found on our website.

SUSTAINABILITY VALUES

SLS takes a values-based approach to learning about global sustainability issues and all materials are organized to reflect core sustainability values. We are currently in what Paul Hawken has researched as the largest social change movement in human history. Joanna Macy calls this the "Great Turning" from an industrial growth world view to a life sustaining society. SLS is designed to help students and teachers step back from our current systems and behaviours to look at the underlying beliefs and assumptions that influence our values and world views.

An important step in this process is to clarify our personal values so we can see how they are either reflected in, or different from, our culture's values. We can then see when our behaviours are in alignment with our values or unconsciously influenced by social norms and systems set up to support different values. With this clarity we can better define the values, behaviours, and systems we choose to support and develop human agency to co-create a life sustaining social order.

The Value CONNECTION module offers a thorough exploration of clarifying our values in connection to ourselves, family, community, nature and our purpose in life. A "Values" Lesson Plan has been created from the Living your Values Action Pack in this module and is included in the Teacher's Kit accompanying each Value module. If time permits, we recommend that teachers start the SLS unit with this lesson, so that every student has an opportunity to clarify their own values and see how they can enjoy living their values on a daily basis.

TURNING AN ACTION PACK INTO A LESSON PLAN

Any Action Pack can be turned into a Lesson Plan. This is a great way to adapt the SLS materials for younger grades who need more support to explore the research of this inquiry process or if teachers want to explore one specific topic in depth with the whole class. A grade 8 Home Economics teacher created a Lesson Plan adapted from two Action Packs, found in the HEALTH module. The following is a generic template for adaptation of Action Packs.

Lesson Plan:			
Suggested Time	Activity	Lesson Description	Teacher
10 min	Define Topic/ Class Inquiry	Use the "Action Pack" Inquiry question to frame an Inquiry Question for this Lesson. Action Pack Inquiry question: Define any needed terms from Glossary and explain that the class will be exploring the topic and relating it to global sustainability issues. SLS has adapted the Brundtland Report definition for Sustainable Development for our definition of Sustainable Choices: <i>"Social and personal practices that meet the needs of the present without compromising the ability of future generations to meet their own needs."</i>	Write Inquiry questions & definitions on board
10 min	Student World View	Have students each complete the Student World View (SWV) for that Value module. <i>(Optional)</i> Have a conversation about how our world views and values affect how we see things, what we investigate and the choices we make.	Photocopy & Handout World views
10 -20 min	Video Exploration	Share 2-4 videos from the research links for the Action Pack with the class to give a deeper understanding of the topic. Access through SLS Online at http://www.BeTheChangeEarthAlliance.org or DVD set from BTCEA.	Projector & DVD or online SLS Access
20 min	Class Discussion Mind Map Lecture	Create a mind map on the board/flip chart about the "Action Pack" Inquiry question. What information do we need to know to answer this question? What collective information is already in the group? Use the Library of Links to access the information you need to provide an informative lecture. Use the Research Questions to prompt the students' attention and retention.	Record mind map ideas Write key terms on board
20 min	Critical Thinking Questions	Divide students into Action Circles (small groups) of 3-5 and assign the Critical Thinking questions from the "Action Pack" to each group to discuss. Students can take notes/complete handout together and share their findings with the class after.	Give students questions (or handouts)
15 min	Local Activity & Actions	Provide students with a list of personal, household, and community actions found in the Action Pack. Ask students to record which Actions they are currently doing and choose a couple to complete. <i>Optional:</i> Students can be assigned to do the "Local Activity" from the "Action Pack" as homework. Hand out the "Local Activity" Pages of the Action Pack. They will hand in both the Local Activities and Action Surveys by: _____	Handout Local Activities Handout Action Surveys
10 min	Student World View	Have students complete the second half of their World View to see if any of their world views have shifted with their new knowledge.	Collect SWVs

SAMPLE SLS UNIT OUTLINE

Teachers are welcome to use SLS materials in any and every creative way that suits their needs. In the past, teachers have delivered SLS in as few as two and as many as ten classes. They all reported that their students were passionately interested in learning more! Here is a sample delivery outline of six classes, including the Living Our Values lesson.

Class One:

- Living Our Values – see Lesson Plan on previous page

Class Two:

- Student World View
- Introduction to Sustainability Value
- Video Clips and Discussion Activities
- Forming Action Circles and Choosing Action Pack topic
- Introduction to Action Pack process

Class Three:

- In computer lab – provide students with class link to online materials
- Complete Research and Research Questions
- Choose Action
- Discuss and plan Local Activity with circle members

Homework: Complete Action and Local Activity before your next class

Class Four:

- Complete the rest of the Action Pack: Circle Dialogue, Critical Thinking, Taking Action pledge
- If time allows start preparation for Presentation

Homework: Complete your 2nd Action and prepare for Presentation

Class Five:

- Finalize Presentation for next class with teammates
- Reference Presentation Marking Rubrics

Homework: Complete any further Presentation preparation

Class Six:

- Class Presentations
- Student World View completed

WAYS TO SUPPORT STUDENTS

SLS can be used in a variety of ways and adapted to accommodate age and aptitude appropriate teaching. Pearson and Gallagher (1983) developed a gradual release of responsibility model that emphasizes a non-linear balance of responsibility between teacher and student to optimize the inquiry and problem solving learning process.¹ This can be applied to using SLS in many ways; outlined below are a few of those methods SLS teachers have used:

Modeling:

- Complete an Action Pack together as a class before assigning Action Packs to circles

Shared Practice:

- Choose specific questions within sections of the Action Pack to suit time availability and aptitude of students
- Choose specific sections of the Action Packs according to level, time, and interest of students
- Have Action Packs handed in for marking after key sections completed to ensure everyone is on track and to help manage the inquiry process

Guided Practice:

- Q & A times to clarify the process and expectations for everyone
- Action Circles 'check-in' with teacher at key completion milestones such as after Research and/or after Local Activity in prep for Critical Thinking and after Critical Thinking in prep for Presentation

Independent Practice:

- Action Packs are quite self-explanatory and mature students will be able to move forward independently. Teachers can see online which students have logged in for their Action Packs and follow up with anyone who have not started their process.

¹ Pearson and Gallagher, 1983, Strategy Implementation Continuum, as referenced on www.edugains.ca/.../Strategy_Implementation_Continuum_11x17.pdf

WHY AN ACTION CIRCLE?

Action Circles are an effective way to explore big picture issues and how they relate to individual behaviours. We are all living in a wash of cultural values and assumptions that now need to be closely examined. But, like fish swimming in the ocean, we can't see the water we're swimming in. Working with others helps us gain insight into the issues from different perspectives and it's often easier to see what someone else is doing than to notice our own habits.

Indigenous cultures over the ages and current behaviour change research have shown that Action Circles can support us to use wisdom, compassion, and action to engage our head, heart and hands in order to affect positive change in the world. Please encourage your students to get the most out of the circle experience. Learn of some of the benefits that you can share with your students on the following page.

HEAD

Dialogue with others helps deepen our understanding of global issues

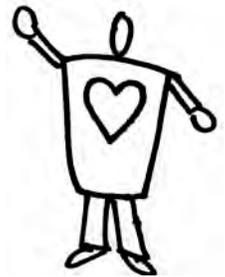
- Educate each other on the facts of what is happening to our world
- Everyone has a unique perspective and integrating this informs and broadens our own world view
- Compare research insights and different experiences
- Brainstorm on solutions and value each other's ideas
- Encourage each other with different ways to change behaviours
- Share the collective wisdom and feel empowered



HEART

Our hearts can help us identify our core values and evoke our passion to protect what we love and to act on what's really important to us

- Don't be afraid to care passionately about something. That gives us the energy to "be the change"!
- Create a culture of mutual support and care
- Offering encouragement to others expands our personal motivation and shifts our focus from self to others
- What may seem too difficult to tackle on our own becomes manageable with the help of our peers
- It's easy to feel overwhelmed by global issues that affect our own well-being but by working together in Circle we experience the impact of collective action and know we're not alone



HAND

It is very satisfying to ground our informed concerns by taking action

- Report on research, activities and actions at each meeting; plan next steps and what to include in your compelling presentation
- Be accountable and do what you said you would do
- Many people learn by doing – share your stories of challenge and victory
- The cumulative efforts of the entire circle inspire us to see how small actions can effect positive change
- Use teamwork – how can you help your circle member complete their action?



CIRCLE AGREEMENTS

Circle agreements help us get the most out of our circle experience. They will vary from circle to circle and need to be understood and embraced by all the members in order to be effective. Circle agreements that you might consider include (but are not limited to):

Hear each other

- Listen to understand not to agree – this will get your mind out of the way
- Don't interrupt someone who is talking
- Respect each other's opinions
- Make sure everyone's point of view is heard

Communicate clearly

- Speak concisely so everyone can participate (have a hand signal if someone goes on for too long)
- Stay focused on topic (have a hand signal if someone is off topic)

Be reliable

- Have integrity and consistency of character
- Be on time
- Share research information and opinions on issue being explored
- Inspire others by your example

Be supportive

- Learn how to encourage everyone to fully participate
- Empathize with the challenges others are facing
- Celebrate everyone's victories as a win for the whole circle
- Acknowledge every member for the changes they made
- Have fun!



...the circle has healing power. In the circle we are all equal. When in Circle no one is in front of you. No one is behind you. No one is above you. No one is below you.

The Sacred Circle is designed to create unity. The Hoop of Life is also a circle. On this hoop there is a place for every species, every race, every tree, and every plant. It is this completeness of life that must be respected in order to bring about health on this planet.”

- Dave Chief, Oglala Lakota

“Respect the wisdom of the people in council. Once you give an idea to the council or circle, it no longer belongs to you. It belongs to the people. Respect demands that you listen attentively to the ideas of others and do not insist that your idea prevail. Support the ideas of others if they are true and good, even if they differ from yours. The clash of ideas brings forth the Spark of Truth.”

- Sacred Tree teachings

BC COURSE CONNECTIONS TO SLS – AT A GLANCE

The following document outlines the more obvious connections related to the PLOs in the latest BC **IRPs from grade 8-12** BEFORE the new curriculum release in August 2015. New course connections are being worked on for the K-9 Curriculum now that the Ministry Curriculum for those grades is no longer in draft form. Please see our website for all currently available course connections.

The **General Course Connections** gives a teacher a quick idea of what topics SLS covers that relates to the subjects they may teach. Lengthier and more precise **Action Pack Specific Connections** can be found on our website that outlines which SLS Materials connect to specific PLOs in each course.

Teachers often use SLS resources that branch out from this list, considering their own interests or that of the students. Some teachers may not see the same alignment that others do so please use this only as a rough guide.

General Course Connections

HEALTH & CAREER	
Health & Career 8, 9 Planning 10	Materials relate to developing deeper connections to personal values, family, nature and life purpose. Modules also bring in themes of personal health, consumption choices, energy use, water quality and natural resource conservation.
Other Connections: Career & Personal Planning 11 & 12	
SOCIAL STUDIES	
Socials 8	Module D) CONNECTION focuses on interactions with self, exploring relationships with the natural environment and civic engagement. Other modules address consumerism through themes including: local economy, consumer rights and overconsumption.
Socials 9	Materials include themes relevant to the Industrial and Agricultural Revolution.
Socials 10	Materials include themes relevant to resource use and extraction in BC, civic engagement and current events.
Socials 11	Materials include themes relevant to poverty as well as issues that affect water and climate change.
Geography 12	Materials include themes relevant to the assessment of the environmental impact of human activities including: energy production and use, forestry, fishing, mining, agriculture, waste disposal and water use.
Social Justice 12	All SLS materials focus on the implications (locally and globally) of our current social, political and economic systems. Focus on the impacts of personal and collective actions with activities, ideas and inquiry that encourage students to take positive action in society.

Other Connections: Civic Studies 11, Comparative Civilizations 12, Law 12	
SCIENCE	
Science 8	Materials include themes relevant to the water cycle and the impacts of human activity on the quality of water and the health of aquatic ecosystems.
Science 9	Materials include themes relevant to energy production and consumption as well as scientific and social explorations of genetically modified organisms (GMOs).
Science 10	New materials include themes relevant to oil consumption and different forms of energy used in British Columbia and Canada. New materials also focus on themes relevant to the web of life and impacts of our human interactions on ecosystems here at home and around the world.
Science & Technology 11	Materials include themes relevant to impacts on the natural environment from agriculture (industrial agriculture, GMOs, organic production and the meat industry), transportation and natural resource extraction.
Sustainable Resources 11, 12	Materials include themes relevant to local and global impacts of industries including: agriculture, mining, fishing, energy and forestry.
Other Connections: Earth Science 11, Geology 12	
HOME ECONOMICS APPLIED SKILLS	
Foods 8-12	Materials on 21 st century healthy food choices and options, food security and health, environmental and economic considerations.
Family Studies 10-12	Materials on healthy lifestyles, nutritional needs, changing family needs and influences, communication, addressing values and reducing your environmental impact in the home.
Other Potential Connections: Textiles 8-12, Applied Skills 11, Business Ed 8-10, Business Ed 11-12, Information Technology 8-10, Technology 8-10, Tourism 11 & 12	
ENGLISH	
Some teachers have shared interest and articulated connections between our materials and English courses. At this point BTCEA would be interested in a teacher creating a Rubric that connects English PLOs, and drawing other connections to make SLS easier for English teachers to use.	

PEDAGOGICAL MODELS FOR TEACHING SUSTAINABILITY

Learning for a Sustainable Future – our Canadian colleagues in Ontario – have compiled an excellent summary of recommended pedagogical approaches for environmental education. We also drew inspiration from the Cloud Institute for Sustainability Education's core content standards to speak to the dynamics of systems and change. Below you can see how their approaches are used within the SLS Program.

1. LEARNING LOCALLY – COMMUNITY AS CLASSROOM ⁱ

Learning locally takes advantage of the natural, built and cultural amenities that exist in the community – just outside the school doors, often a short walk away, regionally or in wilderness areas.

WHY USE IT?

- Learning that takes place in local settings contributes to improved thinking and problem-solving skills. Decision making in authentic contexts is most relevant to learners.
- The world beyond the classroom provides a more inclusive learning environment for all learning styles (e.g. auditory, visual, kinesthetic).
- Using local experiences for learning allows students to explore the complexity of the world beyond the classroom.
- Local experiences are accessible every learning day as well as outside of school hours — supporting a view that learning occurs anywhere and anytime.

HOW SLS USES IT:

- SLS has students bring real objects from the outside world into the classroom to support writing across all subjects: science & social studies inquiry, math (estimating, measuring & calculating), art & music expression, etc.
- SLS tunes students in to what's happening in their own homes, gardens, local cafes, stores, and neighbourhoods.
- Activities that have field trip potential for the whole class are indicated in the lesson plans.

2. INTEGRATED LEARNING ⁱⁱ

Pursue any topic or issue and opportunities arise to address expectations across multiple subjects. Following and using these learning opportunities is the essence of integrated learning. The learning experience addresses and assesses content and skill expectations from two or more subjects. At lower levels of integration distinct subjects are readily identifiable. In fully integrated investigations or projects, subject boundaries are transcended and no longer readily identifiable.

WHY USE IT?

- Integrated learning makes addressing curriculum manageable by offering a means of addressing many subject expectations in a meaningful way.
- It contributes to a deeper understanding of topics and issues, and the interrelationships inherent in complex, real world systems.

- It provides opportunities to differentiate instruction. The inclusion of multiple disciplines provides students with the opportunity to engage their particular interests or abilities.
- Integrated learning enables more authentic assessment.

HOW SLS USES IT:

- SLS is used cross curricular as it has relevance in Socials, Home Economics, Science, English, Planning 10, Health & Career Education.
- Modules and Action Packs break down artificial subject barriers and present students with a more authentic experience of how knowledge is built and problems are solved.
- When SLS is used by different departments in one school, curriculum and colleagues can unite around sustainability as a thematic teaching approach and in doing so, can help students gain deeper understanding.
- Learning outcomes derived from Action Packs can easily include those associated with journal writing, drawing & photography, observing & recording, and hypothesis testing to name a few.

3. ACTING ON LEARNING ⁱⁱⁱ

Acting on learning moves beyond investigation of an issue to identifying solutions and working towards a desired change in personal lifestyle, in school, in the community and on the planet. The action projects are practical, real and relevant to the students. They are not planned simply as a learning exercise.

WHY USE IT?

- Students put what they have learned into action and in turn gain greater understanding through the process. The premise is that if something is worth knowing it is worth acting upon.
- Learning engagement is enhanced as students move from passive detachment to active involvement. The authenticity of the learning stimulates student achievement.
- Benefits accrue to both the students and the community.
- Skills, knowledge and attitudes for active citizenship are cultivated. Students cultivate a hopeful outlook by experiencing that change is possible through their efforts.
- These experiences provide career insights and prepare students for the world of work. The skills of 'acting on learning' overlap the skills of employment.
- Acting on Learning is transformative. It can include work towards social and environmental justice with students involved as active collaborators in complex, multi-disciplinary community action projects, which they initiate and lead themselves.

HOW SLS USES IT:

- Action Packs are not designed to be culminating activities. They lead students through an inquiry process that invites them to consider the costs and benefits of taking a personal action that is easily defined and achievable.
- Students complete the Action Pack by choosing to take one action. They are offered a full range of actions, from very simple, short term commitments to those that engage others, to those that can launch school projects.
- SLS encourages students to use their own life as the testing ground for experimenting with behavioural change that can have significant social impact.

- SLS offers a variety of Action Packs so that students can choose the topic in which they are most interested.
- SLS Action Packs are designed to educate and inform, promote positive change, improve the well-being of others and contribute to the personal, social and environmental well-being of the participants.

4. REAL WORLD CONNECTIONS ^{iv}

Real world connections draw from or upon actual objects, events, experiences and situations to effectively address a concept, problem or issue. It involves learning that allows students to actually experience or practice concepts and skills as opposed to learning that is theoretical or idealistic. It features learning projects that directly relate to, are relevant to, or provide benefit to students and their families or the community.

WHY USE IT?

- This approach utilizes concepts, problems, or issues that are similar to what students have encountered or are likely to encounter in life.
- It brings the relevance, complexity and motivation of the real world to learning.
- Sensory experiences are highlighted thereby appealing to and assisting a wide range of learners.
- Making real world connections promotes student achievement through the authenticity of the learning.
- Learning is based on information derived from real world sources.
- The learning and the results of the learning are directed to audiences beyond the school.
- It supports character education as relationships between the community, the school and students are enhanced.
- Real world connections provide more opportunities to learn how our communities and society work.

HOW SLS USES IT:

- SLS Action Packs focus learning on current issues and problems familiar to the students.
- Action Pack activities provide hands-on learning opportunities that are highly engaging and appealing to kinesthetic learners.
- Action Pack research connects students with engaging A/V clips, appealing to and assisting a wide range of learners.
- SLS supports student action to find solutions or examine relevant case studies when circumstances prevent direct student involvement in the issue(s).
- Action Packs have students collect, manipulate and use real data.
- SLS encourages students to communicate what they learn beyond the classroom to their peers, family, and community members.
- SLS prepares students to look to the broader community for partnership and mentoring opportunities that will allow students to practice, enhance and apply classroom learning in a real world setting.

5. CONSIDERING ALTERNATIVE PERSPECTIVES ^v

In the process of forming opinions, clarifying values and taking an informed position, the learner considers different ways of looking at issues and reaching solutions. This approach includes consideration of complimentary and competing strategies, experiences and world views.

WHY USE IT?

- This approach helps expose the values we have to the scrutiny of critical thinking and preparing students to make better decisions as informed citizens.
- It creates a thinking challenge through which critical analysis skills and informed opinions can be developed.
- Consideration of alternate perspectives promotes open-mindedness and a willingness to take relevant evidence and argument into account in forming or revising our own beliefs and values.
- It presents more options for solving problems and addressing challenges.
- Considering differing points of view develops 'intellectual empathy' known as the ability to respect and understand other points of view by making students more aware of their own values and biases.
- It is an approach that promotes diversity, creating a learning environment that is emotionally safe for students.
- Concerns of bias and indoctrination in the learning process can be effectively addressed.

HOW SLS USES IT:

- SLS recognizes that sustainability issues are complex and does not offer any "right" answer, but frames all the issues within a context of gathering information in order to make discerning choices.
- SLS Lesson Plans offer class discussion questions that help students identify the various stakeholders who are involved and affected by the sustainability concern.
- SLS Action Circle agreements are created to help students create a framework for open listening to respect diverse points of view.
- Action Circle dialogues are designed to help students discover and respect diverse and multi-cultural points of view.
- Websites and video links are chosen to cover off various aspects of the issue being researched, and occasionally include clips with opposing perspectives (i.e. Monsanto video in GMO Action Pack research).
- Sustainability concerns are, in and of themselves, an alternative perspective to the prevailing industrial age point of view in mainstream society.
- SLS presentations require students to gather, assess and compare information from a variety of sources and to clarify and support their own positions.
- SLS presentations can include drama, role-playing and simulation activities.
- Action Packs provide frequent opportunities for reflection.

6. INQUIRY ^{vi}

Inquiry is an approach to learning that is directed by questions that individuals and groups of learners work together to address. Both process and products of learning are assessed. At its best the learning is driven by student-generated questions. Students, assisted by the teacher, clarify the questions being asked and determine how to answer them. The outcome of the inquiry is shaped by the teacher so as to align with curriculum expectations. In the pursuit of answers, unplanned but important learning territory is often discovered.

WHY USE IT?

- Inquiry connects school learning to the student's own knowledge and experiences.
- It provides a context to develop critical thinking skills and encourages problem solving – an important learning strategy for developing entrepreneurial and employment skills as well as community engaged citizenship.
- Inquiry learning requires that students pull information versus other approaches that push it at them.
- Students are provided with opportunities to apply a wide range of reading, writing, talking, listening, and thinking skills.
- Student learning improves when schools adopt a model of inquiry across all grades and subjects.
- Inquiry promotes the development of a community of learners where group knowledge-building contributes to individual understanding.
- Through inquiry students become more creative, positive and independent.

HOW SLS USES IT:

- SLS Lesson Plans and Action Packs are designed to position the teachers as the 'guide on the side' as opposed to a 'sage on the stage.'
- It can be challenging for a teacher to provide students with the research information they need in order to "land" an open ended inquiry process. The SLS program provides a variety of choices so that the students can still have an experience of exploring a topic they are interested in, while ensuring that they have the resources to satisfy their inquiry.
- When they proceed into the Critical Thinking section of their Action Pack the teachers may assign the option "Inquiry Question" that has the students formulate the question they think society should be focusing on.
- Action Packs are designed to support student learning as opposed to directing it, by providing a wide range of videos and websites to explore online. They choose which Research and Critical Thinking Questions they want to focus on.
- SLS Value Modules convert curriculum expectations to "big questions" that challenge students in language they understand.
- Investigating the issues together in Action Circles, students are provided with opportunities to dialogue on their research and discuss the critical thinking questions before positing their unique perspective.
- SLS Class Presentations develops a community of learners sharing knowledge that deepens individual understanding.

7. SYSTEMS THINKING ^{vii}

With Systems Thinking we recognize the dynamics of systems and change. A system is made up of two or more parts in a dynamic relationship that forms a whole whose elements 'hang together' and change because they continually affect each other over time. The life support systems of the planet operate in this way. Our individual values and behaviours intrinsically affect the larger social system within which we operate.

WHY USE IT?

- Students will know and understand the dynamic nature of complex systems and change over time.
- They will be able to apply the tools and concepts of system dynamics and systems thinking in their present lives and to inform the choices that will affect our future.

HOW SLS USES IT:

- SLS consistently provides an opportunity for students to see the relationship between our individual actions and the larger social and environmental systems of which we are a part.
- SLS empowers students to recognize that individual choice is an essential part of systemic change.
- SLS starts with looking at an over-arching value and sustainability issue, breaks students into small groups for inquiry into specific aspects of the larger issue, and then brings the small groups together to present on their findings where the class can see how inter-related the specific issues are within the larger system.
- When working with more than one Value Module, students can see how inter-related the Values are within the larger issue of Sustainability.

8. INTEGRAL LEARNING METHOD ^{viii}

An Integral approach to learning has us step back from our current systems and behaviours to look at the underlying beliefs and assumptions that influence the values of our world view.

WHY USE IT?

- As we clarify our personal values we can see how they are either reflected or different from our culture's values. We can see when our behaviours are in alignment with our values or unconsciously influenced by social norms. We can also see how our social systems are set up to serve our social values and how easily this influences our personal behaviours.
- With this clarity we can better define the values, behaviours and systems we choose to support in order to create a life sustaining social order. The Integral model shows these distinctions in the quadrants outlined on the following page.

HOW SLS USES IT:

- Each Action Pack in the Student Leadership in Sustainability program is designed to lead the students through an exploration of all four quadrants. In this process students can learn how we can update our world view and social systems to reflect our current information and understanding of what is best for ourselves and our planet.

Integral Learning Method Model

<p>UL – Upper Left</p> <p>I INTERIOR: Beliefs & Values</p> <p>I clarify my values, based on my current beliefs of how the world works and what affects my personal and planetary well-being.</p> <p><i>Values Lesson Plan</i> <i>Value: CONNECTION module</i></p>	<p>UR – Upper Right</p> <p>I EXTERIOR: Personal Actions, Behaviour & Choices</p> <p>I notice if my actions are congruent with my values, and I change them to reflect my beliefs of what affects my personal and planetary well-being.</p> <p><i>Taking Action to Be The Change – within each Action Pack</i></p>
<p>WE INTERIOR: Shared Beliefs & Cultural Values</p> <p>I join with others who share my values; we educate each other to create an informed culture of change to support our emergent world view.</p> <p><i>Research and Critical Thinking sections of each Action Pack</i></p> <p>LL – Lower Left</p>	<p>WE EXTERIOR: Collaborative Actions Creating Systemic Change</p> <p>Together we create systems to support our values and to make it easier for others to act in accordance with our personal and planetary well-being.</p> <p><i>Taking Action to Be The Change</i> <i>Value: INNOVATION module</i></p> <p>LR – Lower Right</p>

****See the BTCEA website for a more comprehensive look at this model***

(UL) Upper Left Quadrant: Personal Values and Beliefs. A “Values” Lesson Plan is included in Teachers’ Kits. We recommend that the teacher start the SLS process with this lesson, so that every student has an opportunity to clarify their own values and see how they can enjoy living their values on a daily basis. Additionally, Module D: CONNECTION offers a thorough exploration of clarifying our values in connection to ourselves, family, community, nature and our purpose in life.

(LL) Lower Left Quadrant: Social/Cultural Values and Beliefs. Our social values and beliefs need to evolve on an ongoing basis. We have now discovered that many of the beliefs and assumptions of the industrial world view are incorrect. For example, we do not have limitless resources and the Earth does not have a limitless capacity to absorb our toxic chemicals and non-biodegradable waste and neither do our human bodies. In the Research section of the Action Packs students learn important information that helps them understand how the old assumptions are being proven incorrect and need to be updated.

(UR) Upper Right Quadrant: Personal Behaviours. As we update our unexamined cultural assumptions, we are called upon to clarify our personal values (UL) that correspond to the beliefs about the planet that we now understand to be true. Students connect the global issues to their personal behaviours in the Activity section of the Action Pack. They use their own lives and households as their classroom in order to connect their behaviours to the global issues. In the Critical Thinking section, they consider the Costs and Benefits of changing their behaviours and then choose an action so that they can personally experience what it is like to change behaviours to align with their values.

(LR) Lower Right Quadrant: Social Behaviours and Systems. Students discover that humans are not only connected to the natural planetary life support systems, but we have now become a force that can irrevocably affect their delicate balance. Although changing our systems is often the first place we turn to course correct, having our personal values (UL) and behaviours (UR) in alignment with these systemic changes (LR) will ensure their success and sustainability. Now that students have explored the systems in their own households, they will be empowered to support change and influence others within the community. Additionally, every Action Pack contains ideas for school projects. To support systemic changes within the school, the INNOVATION Module provides students with an excellent process to research their topic and develop a feasibility study for their sustainability project at school.

Students also experience the process of shifting social values by working collaboratively in an Action Circle and experiencing the shared values within this small group. Class Presentations provide an opportunity for the shared beliefs and values to expand from the Action Circle to the entire class.

ⁱ Learning for Sustainable Future - <http://www.lsf-ist.ca/>

ⁱⁱ IBID

ⁱⁱⁱ IBID

^{iv} IBID

^v IBID

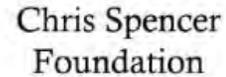
^{vi} IBID

^{vii} Cloud Institute <http://cloudinstitute.org/cloud-efs-standards>

^{viii} SLS Program Manual

SPONSERS

We are deeply grateful to the private donors and organizations that have supported BTCEA with our sustainability education work over the years, including:



This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de :



Environment
Canada

Environnement
Canada



GREENEST CITY FUND



vancouver
foundation

ENDORSEMENTS

We are glad to have developed strong working relationships with and honoured to be endorsed by:



British Columbia Teachers for
Peace and Global Education
Formerly Global Education



BE THE CHANGE
EARTH ALLIANCE

www.bethechangeearthalliance.org

604-269-9874 or [sls\(at\)bethechangeearthalliance.org](mailto:sls(at)bethechangeearthalliance.org)

949 W 49th, Vancouver, BC, Canada, V52 2T1