4.0 Ecological Literacy

Grade One Ecological Literacy

Our Big Ecological Cost

How does human behavior affect the health and well-being of other living creatures?

What does our Earth mean to us?

What does our Earth mean to us?

How can we change our behavior?

Ecolodags school.ca
Collecting ecoliteracy examples

Collecting evidence of ecoliteracy can be a challenge. Ask teachers to support the EcoTeam by submitting examples of their students’ work with a completed Ecoliteracy Checklist form. Make it easy for teachers to submit their samples by creating a drop-off collection area. If this location is set up all year long in the staff room or some other central location, it can serve as a reminder. While you only need 5-10 examples for your portfolio binder you may want to put out feelers to lots of people to ensure that you get a range of examples (e.g., not just grade 2 work).

Implementation ideas
- Some teams have had great success when their principal invites teachers to submit their best example of ecoliteracy.
- Have a collection box, folder, or binder in the staff room.
- Post an ‘ecoliteracy’ folder on your school’s shared drive.
- Make the Ecoliteracy Checklist form (go to ecoschools.ca>Forms>section 4 of the Certification Toolkit) readily available to teachers throughout the year so you’re not scrambling to get them completed the day before the audit.
- Create an ecoliteracy display in the hallway where teachers from different grades/departments can post samples of student work to highlight their learning.
- Ask teachers to bring samples to staff meetings.
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Planning collaboratively & school visit “look-for”

Community walks

Exploring the community allows students to build a geographical sense of the neighbourhood and gain comfort in exploring it. It’s also a fantastic way to investigate ideas and concepts being addressed in the classroom, whether you’re having students collect data on trees, think about animal habitats, follow the flow of water, or search out different types of structures. By getting students active and out in their environment you can help them build a deeper understanding of their connections to and interactions with the environment.

Implementation ideas
- Encourage classes to go outside regularly for a community walk. Some schools select a common day or week for whole school participation.
- Select a theme or topic for all classes to explore.
- Interpret the walk theme through a variety of lenses (e.g., art activity, writing, science activity, data management).
- Encourage classes to connect the focus/theme of the walk to their own classroom learning.
- Display follow-up work in the hallway so that students and teachers can see what other classes have discovered on their walk.

I – Walks

Please keep in mind:
All of these topics are subject to change for a variety of reasons (e.g., weather)
The topics are a beginning point for your ecological literacy
Responses will vary according to grade level, interests, programming, time available to work on a response, etc.

Use these response ideas or create your own.

February
Look for – States of Water
- Snowflakes, crystals
- What is the water cycle?
- Which is more eco-friendly for making ice? Sand or salt?

April
Look for – Signs of Spring
- Make a list of the signs of spring that you see in the neighbourhood.
- Why do the seasons change?
- What is your favourite season? Why?

November I Walk
Signs of Animal Life in our Community

On our November I Walk, we found three bird nests. They are very interesting to be looking more about birds. These are some interesting facts we researched.

November I Walk
Signs of Animal Life in our Community
Instead of an open topic science fair, why not hold an eco-themed science fair to uncover and explore issues about the environment? This develops systems thinking and inquiry skills, and develops students’ knowledge of the environment. A school wide science fair also gives evidence of whole school planning and is a great chance to collect examples of student work that you may want to highlight in the portfolio binder.

**Implementation Ideas:**

- Students can research and present ideas about topics such as climate change, the effects of chemicals on ecosystems, lifecycles of products, and biodegradable claims.
- Have younger grades complete a classroom based display rather than independent projects so they’re also able to participate.
- Encourage students to investigate and incorporate a local action component (individual, school or community) into their projects. Action helps build hope and a sense of empowerment.
- Create a simple press release and invite local media to attend the event
- Open the event up to the community in the day or evening to celebrate student work and create a broader awareness of environmental issues.
Select an environmental topic for your literacy pathway. This choice allows students to practice their systems thinking and learn how nature works while they are developing their literacy skills. A division or school-wide literacy pathway also provides evidence of team planning and an opportunity to collect student work for your EcoSchools portfolio.

**Implementation ideas**
- Collaborate as a division or whole school.
- Take an interdisciplinary approach and search out environmentally-themed books that address another subject area such as science or social studies.
- Work with your librarian to develop a collection of environmentally-themed books that can be used to address the literacy skills being addressed.

**Sample Literacy Pathway: Questioning with Eco-literacy focus**

The purpose of this pathway is to develop students’ ability to ask, create, and respond to a variety of questions. Integrate environmental issues within this pathway.

Each grade will focus on Writing Expectation 1.2. Create cross-curricular connections with other subjects.
The school librarian has the opportunity to work with all of the students in the school. Build a partnership with your librarian to engage students throughout the school in eco-based learning.

**Implementation ideas**
- Select an environmental theme periodically throughout the year or during a given month.
- Create a display of eco-books to encourage the interest of teachers and students.
- Organize eco-themed book bags that can be rotated among the classes.
- Integrate the environment into media literacy lessons/units.
Collaboration among departments

Collaborate among departments to integrate ecoliteracy into several subject areas, allowing students to see how learning can be connected across different subjects. The degree of collaboration can vary greatly from school to school. Start small with just a few teachers working together and supporting each other in infusing environmental topics and ideas into their courses.

**Implementation ideas**
- Develop cross-curricular lessons/units (e.g., see climate change cross-curricular goals above).
- Meet regularly to share successes and challenges.
- Invite guest speakers to present to your group or go on an eco-outing as a source of inspiration.
- Create a Position of Responsibility (POR) that supports teachers in integrating environmental thinking into their teaching.
A whole school theme is an initiative or challenge that asks members throughout the school to participate in integrating a common goal into their teaching. This strategy can engage and build the school community, often creating a sense of shared accomplishment. Benefits can include an enhanced sense of teamwork, a showcase of the environmental program throughout the school (a great example of collaborative planning and organization in the school for the portfolio binder), and students highly engaged in environmental learning.

**Implementation ideas**

- Host a school-wide challenge for classes to create an informative display about the topic selected. For example, have classes decorate their doors and give awards for things such as the most informative, creative, and best use of reusable materials in each division.

- Choose a common topic, for example oceans. Have each class create items or conduct research (e.g., different types of ocean plants, fish, animals etc.). Combine their work to create a community mural so that all students will be able to see a part of their work in the art piece. It can also be an engaging and informative display for community members.

- Some elementary EcoTeams have had success by planning ahead with divisional leads to choose a common environmental theme for each month. Teachers are invited to develop curricular connections for a lesson or unit related to the theme and to display any theme-related student artwork; multi-class displays can highlight connections across subject areas.
Promote environmental learning and build capacity by creating opportunities for professional development in this area. By engaging staff in discussions about environmental education, teachers can share their ideas and best practices and continue to learn new strategies. You may wish to do this as a whole school or in smaller groups.

**Implementation ideas**
- Create an eco-focused Professional Learning Community (PLC).
- Select an environmental education professional resource to explore in a teacher’s book club.
- Host a lunch-and-learn session about environmental learning strategies.
- Explore ways to connect division- or school-wide priority areas (e.g., inquiry-based learning, literacy) to environmental topics or themes.
- Organize an outdoor tour to examine the learning opportunities on your school grounds.
- Coordinate a Family of Schools (FOS) meeting to share ideas.
- Create and share integrated or cross-departmental lesson plans.
- Create a resource binder of eco-lesson plans and keep in a well publicized location.
- Inform your staff about workshops with a focus on environmental education or bring in an expert for a PD session. The Council of Outdoor Educators of Ontario and Ontario Association for Geographic and Environmental Education and the Environmental Teachers of Toronto Environmental Committee are groups dedicated to furthering environmental education.
- Explore strategies such as inquiry-based learning to enhance environmental knowledge.
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Teacher resources

Making ecological literacy resources available to teachers can build their knowledge of environmental issues and support integration of ecological literacy into their day-to-day teaching.

Implementation ideas

- Create an environmental resource centre with tools, books, and lesson for everyone to share.
- Put together a resource guide with ideas for using your school grounds for learning.
- Create an eco-kit that classes can borrow (fill it with books, identification guides, and a class set of useful exploration tools such as magnifying glasses).
- Create an eco-news bulletin board where people can post articles about the environment, keeping teachers up-to-date on issues and providing them with content that they can take into the classroom.
- Visit ecoschools.ca>Resources and Guides for additional resources
- Sign up for the EcoSchools newsletter at ecoschools.ca>Newsletter
- Check out Ontario EcoSchools’ website (ontarioecoschools.org) for curriculum resources, environmental organization resources, and environmental education videos.
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Education IN the environment

Exploring the school grounds

Take your students outside to explore and learn on your school grounds. This provides an opportunity for hands-on learning and a change of pace from the indoor classroom without needing to order a school bus! You can find ways to explore every subject area on your school grounds. The options in the outdoor classroom are as boundless as your imagination.

Implementation ideas

- Tips for teaching outdoors: Establish your expectations about behaviour and conduct. Face the sun when speaking so that the sun is not in students’ eyes. Keep the students in close proximity when you are speaking. Allow students to share their personal experiences in the outdoors. Follow up with thorough discussion.
- Have a regular time set for outdoor learning. The more you take them out, the more comfortable you all become.
- Explore and/or compare natural and human-made colours, lines, textures, shapes, and structures on your school grounds.
- Use your school grounds as a hands-on opportunity for measurement and geometry.
- Map your school grounds as they are or imagine new possibilities for the design of your school grounds.
- Describe the sights, sounds, and smells found around your school yard in a narrative or poem.
- Prepare students to observe carefully and make accurate recordings of what they are studying.
Art can be used to demonstrate understanding of an environmental concept. Keep in mind that it is the message that makes it “eco,” not just the materials used, although natural or reused materials are always suggested. Eco-art can be used in examining an aspect of nature or an environmental issue, or can be incorporated into an environmental campaign. It can be a fun, interactive way for students to get excited about the environment while deepening their understanding of how nature works.

**Implementation ideas**

- Consider outdoor art installations that engage the wider community.
- If you are learning about an overwhelming issue like climate change, consider having students make an art piece that reflects their feelings on the subject.
- Think about ways you could have students put a key concept like a life cycle into a dance or song?
- Re-using materials? Consider whether the end product of the combined materials will create more or less waste than the original materials. Discuss the life cycle of the materials that you are using.
- Contacting a politician about a local issue? Think about how you can use art (or perhaps video) to make your communication stand out among their masses of mail.
“A system is a set of interrelated elements that make a unified whole. Individual things—like plants, people, schools, watersheds, or economies—are themselves systems and at the same time cannot be fully understood apart from the larger systems in which they exist. Systems thinking is an essential part of schooling for sustainability. A systems approach helps young people understand the complexity of the world around them and encourages them to think in terms of relationships, connectedness, and context.” (From the web: Systems Thinking, Centre for Ecoliteracy)

**Implementation ideas**
- When thinking about systems concepts, consider the following: 1. What are the parts of the system? 2. How does the system function as a whole? 3. How is the system itself part of a larger system?
- Have students create dependency webs, consequence or concept maps. Check out scenario mapping, “Operating A Bakery Depends on the Sun and the Earth.” Go to the Ecological Literacy section in the *Certification Toolkit* to explore these tools for systems thinking.
- Take students outside; have them find, record, and connect parts of a given system.
- Have students take on the role of an element that is cycling through a system (e.g., water, carbon).
- Investigate the life cycle of a popular electronic device or the journey of a common food item from farm to table.
Connect outdoor and classroom learning by creating a nature display area with items that relate to what your class has done outdoors.

**Implementation ideas**

- Take photos of your grounds throughout the year to track seasonal changes.
- Create a touch table for objects that are related to your outdoor studies (e.g., physical objects from your explorations such as leaves, books that are related to your outdoor studies, tools for inquiry such as magnifying glasses and measuring tape).
- Have students research, create, and maintain a temporary terrarium habitat for common school ground inhabitants (e.g., snails, beetles, worms). After achieving your learning goals (e.g., understanding habitat needs, studying animal behavior) release the animal(s) back to the original habitat.