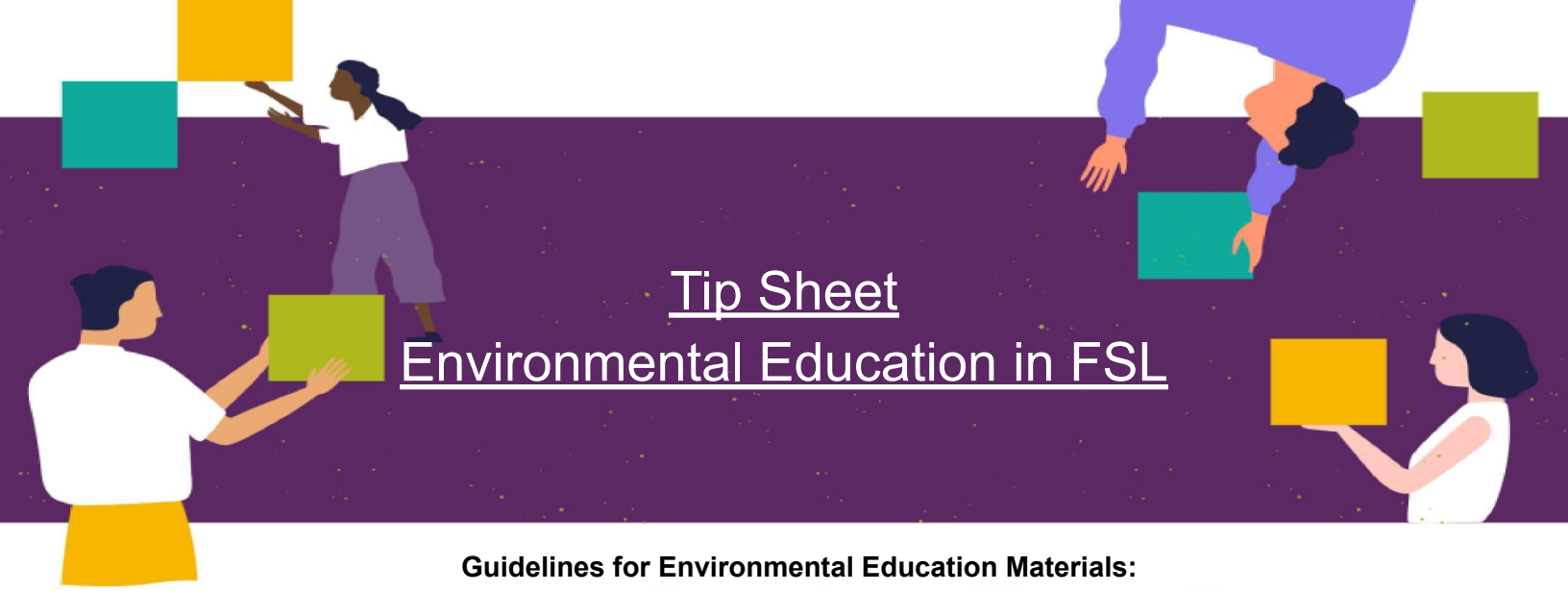

Tip Sheet
Environmental Education in FSL

Guidelines for Environmental Education Materials:

#1: Accurate and Inclusive

- materials describe the topic, challenges, decisions and possible perspectives.

#2: Emphasis on Skills Building

- learners are motivated to think critically, arrive at their own conclusions and make conscious decisions about challenges and opportunities.

#3: Depth of Understanding

- teaching materials promote environmental literacy

#4: Personal and Civic Responsibility

- encourages learners to use their social, political, cultural and economic knowledge for environmental decision-making and action.

#5: Instructional Effectiveness

- relies on inclusive education for all learners:

5.1 Learner - centered instruction

5.2 Different ways of learning

5.3 Connection to learners' everyday lives

5.4 Expanded learning environment

5.5 Equitable and[1] inclusive learning environments

5.6 Interdisciplinary

5.7 Goals and objectives

5.8 Appropriateness for specific learning settings

5.9 Assessment

#6: Usability - resources are well-designed and easy to use. (naaee, 2021, p. 15)

[1] https://cdn.naaee.org/sites/default/files/eepro/resource/files/guide_2.21.21.small_acc.pdf

Key Principles That Inform Environmental Education:

Build on Prior Interest and Identity

Move Beyond Token Cultural References

Work Against the Savior Fetish

Do Not Position Learners as Cultural Representatives but Welcome Their Voices

Invite Genuine Cultural Contributions from Learners

Minimize Epistemic Injury

Support Learners in Taking Meaningful Action

Excerpted with permission from: Bell, P. Rodriguez, A., Tzou, C. & Morrison, D. How to avoid possible pitfalls associated with culturally responsive instruction. 2018. STEM Teaching Tools Initiative, Institute for Science + Math Education. Seattle, WA: University of Washington. Retrieved from http://stemteachingtools.org/brief/53 2 For information about self-documentation instructional techniques, visit: http://stemteachingtools.org/brief/31

Essential Underpinnings of Environmental Education




Environmental education builds from a core of key principles that inform its approach to education:

Human Well-Being: Human well-being is inextricably bound with environmental quality. Humans are a part of the natural order. Humans, and the systems they create—societies, political systems, economies, religions, cultures, technologies—impact the total environment and are impacted by the environment. Since humans are a part of nature rather than outside it, they are challenged to recognize the ramifications of their interdependence with Earth systems.

Importance of Where One Lives: Beginning close to home, learners connect with, explore, and understand their immediate surroundings. They appreciate the nature around them wherever they live. The sensitivity, knowledge, and skills needed for this local connection to both the natural and built environment provide a base for moving into larger systems, broader issues, and an expanding understanding of connections and consequences.

Integration and Infusion: Disciplines from the natural sciences, social sciences, and the humanities are interconnected through the environment and environmental issues. Environmental education offers opportunities to integrate disciplinary learning, fostering a deeper understanding of concepts and skills. EE works best when infused across the curriculum, rather than being treated as a separate or isolated experience.

Justice, Equity, Diversity, and Inclusion: Environmental education instruction is welcoming and respectful to all learners and embraces the principles of fairness and justice. EE is designed to employ and engage people with different backgrounds, experiences, abilities, and perspectives through culturally relevant and responsive instruction. EE actively works to create equitable learning opportunities and promotes the dignity and worth of people of all races, ethnicities, religions, genders, sexual orientations, gender identities, abilities, incomes, language groups, marital statuses, ages, geographic locations, and philosophies.

Lifelong Learning: Critical and creative thinking, decision making, communication, and collaborative learning, are emphasized. Development and ongoing use of a broad range of skills and practices are essential for active and meaningful learning, both in school and over a lifetime.

Roots in the Real World: Learners develop knowledge and skills through direct experience with their community, the environment, current environmental issues, and society. Investigation, analysis, and problem solving are essential activities and are most effective when relevant to learners' lives and rooted in their experiences.

Sustainable Future: Supporting the United Nations Sustainable Development Goals, learning reflects on the past, examines the present, and is oriented to the future. Learning focuses on environmental, social, and economic responsibility as drivers of individual, collective, and institutional choices.

Systems and Systems Thinking: Systems thinking helps make sense of a large and complex world. A system is made up of parts. Each part can be understood separately. The whole, however, is understood only by examining the relationships and interactions among the parts. Earth is a complex system of interacting physical, chemical, and biological processes. Organizations, individual cells, communities of animals and plants, and families can all be understood as systems. And systems can be nested within other systems.

[2]

[2] https://cdn.naaee.org/sites/default/files/eepro/resource/files/guide_2.21.21.small_acc.pdf (p. 10)

Preparing a Lesson Plan and Incorporating Environmental Principles:

Before teaching:

Teacher reflection:

- Why am I teaching this topic?
- What do I want students to learn?
- Do I have enough knowledge of the subject I plan to teach?

For additional knowledge please visit the websites below.

Teacher's learning goals:

Lesson goals:

- What do I want my students to learn? Language and environmental objectives
- Plan how learning is going to take place.
- How is the learning going to happen? Gestures, visuals, talk, opportunities to access background knowledge and KWL charts (K - student prior knowledge, W - what students want to learn or will learn, L - what students learned), games, discussion activities.
- How can I include the key characteristics for sustainable learning in my teaching?
- How can I include the diverse learning styles?
- Students will be able to… (choose an academic and an environmental goal).

Materials needed:

- Outdoor activities and relationships with the land?
- Videos, books, artifacts, worksheet, etc.

Strategies to Promote Thinking

1. Use a KWL chart before you begin teaching to explore students' prior knowledge of the subject (there is no wrong answer), what they would like to learn about the topic, what they learned and what is not clear yet (this will happen at the end of the learning process).

2. Activating learners' schema and putting things in context to motivate students to explore new topics and make connections with everyday life and previous knowledge. Divide the class into groups and ask questions about the topic to be taught (e.g., what do you think about…?, what does… means to you?, How…, why…, etc.)

   Have students choose three social or cultural aspects of their culture they would like to share with indigenous students (promotes holistic value #11 Healthy relationship with self and identity, shared above).

3. At the end of the learning unit teachers and students should reflect on learning:

   What did you notice during the lesson
   What did you appreciate?
   What stood out to you?

Resources:

https://www.abca.ca/education/lessonplans/
Lesson plans by grade level and teacher resources through the green classroom. (English)

https://www.otffeo.on.ca/en/resources/useful-links/environmental-education/
Ontario Teachers' Federation. Useful links for environmental education. (English)

https://www.edu.gov.mb.ca/m12/dev_durable/ressources.html Manitoba

Éducation au développement durable (Français)

https://www.edutopia.org/topic/environmental-education
Learn about sustainability, conservation, and other earth-friendly practices and curricula. An interdisciplinary approach (English)

https://cbeen.ca/education-resources/
A summary of excellent resources available to support both classroom and community-based environmental education programs. (English)

https://www.greenhearted.org/environmental-education-in-french.html
(French - secondary)

https://tropicsu.org/lesson-plan-french-vocabulary/
(English and French - middle school and secondary)