

## **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 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, 2022, p. 16)

<sup>&</sup>lt;sup>1</sup> NAAEE. *Guidelines for Excellence Environmental Education Programs*. 2022. Retrieved from <a href="https://eepro.naaee.org/sites/default/files/eepro-post-files/quide\_4.ee\_programs.5.20.22.no\_crops\_compressed.pdf">https://eepro.naaee.org/sites/default/files/eepro-post-files/quide\_4.ee\_programs.5.20.22.no\_crops\_compressed.pdf</a>

## **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. Teaching Tools for Science, Technology, Engineering and Math (STEM) Education. Seattle, WA: University of Washington. Retrieved from <a href="http://stemteachingtools.org/brief/53">http://stemteachingtools.org/brief/53</a>

Bell, P. Morrison, D. & Debarger, A. How to launch STEM investigations that build on student and community interests and expertise. Teaching Tools for Science, Technology, Engineering and Math (STEM) Education. Seattle, WA: University of Washington. Retrieved from <a href="http://stemteachingtools.org/brief/31">http://stemteachingtools.org/brief/31</a>

# **Essential Underpinnings of Environmental Education**

Visit the document produced by NAAEE in its original context by clicking on the following link <u>Guidelines for Excellence Environmental Education Programs</u>, page 12 to read about **Essential Underpinnings of Environmental Education**.



Image issue de <u>vectorportal.com</u>

# 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. (Resources section)



## 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**



- 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

Ausable Bayfield Conservation. Lesson Plans and Teacher Resources through The Green Classroom. <a href="https://www.abca.ca/education/lessonplans/">https://www.abca.ca/education/lessonplans/</a>

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

Learn about sustainability, conservation, and other earth-friendly practices and curricula. An interdisciplinary approach with Edutopia. *Environmental Education*. <a href="https://www.edutopia.org/topic/environmental-education">https://www.edutopia.org/topic/environmental-education</a>

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

North American Association for Environmental Education (NAAEE). Guidelines for Excellence Environmental Education Programs. 2022. Retrieved from <a href="https://eepro.naaee.org/sites/default/files/eepro-post-files/guide\_4.ee\_programs.5.20.22.no\_crops\_compressed.pdf">https://eepro.naaee.org/sites/default/files/eepro-post-files/guide\_4.ee\_programs.5.20.22.no\_crops\_compressed.pdf</a>

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Gouvernement du Manitoba. Éducation et Apprentissage de la petite enfance : Éducation au développement durable.

https://www.edu.gov.mb.ca/m12/dev\_durable/index.html (en français)

GreenHeart Education. Environmental Education in French: Le changement climatique - en classe de français.

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

TROPICSU. Climate Change Education Across the Curricula, Across the Globe. Lesson Plan: Enhancing French Vocabulary: Written and Spoken Language.

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

secondary)

