Environmental Educator Knowledge & Skills: Guidelines for Excellence

Online Workshop

Instructor's Manual

naaee
North American Association for Environmental Education

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Environmental Educator Knowledge and Skills: Guidelines for Excellence
Online Module[1]

Instructor's Manual

Overview

Through this module, participants will be introduced to a set of competencies for educators articulated in NAAEE's ***Environmental Educator Knowledge and Skills: Guidelines for Excellence***. These competencies are designed for educators preparing to teach environmental education in a variety of job settings. As a culminating exercise, participants will have the opportunity to complete a self-assessment against these competencies and create their own professional development plan.

The ***Educator Guidelines*** outline a set of recommendations about the basic knowledge and abilities educators need to provide high-quality environmental education. The guidelines are designed to apply:

- ✓ within the context of preservice teacher education programs and environmental education courses offered to students with varied backgrounds such as environmental studies, geography, liberal studies, or natural resources
- ✓ to the professional development of educators who will work in both formal and nonformal educational settings, offering programs at the prekindergarten through 12th grade levels
- ✓ to full-time environmental educators and those for whom environmental education will be among other responsibilities

Your students/participants will have the opportunity to unpack these competencies and think about what it means to be an environmental educator.

Using this Online Module

We understand that you may be teaching a semester-long course in environmental education, a short professional learning workshop for local classroom teachers, or something entirely different. This module is offered as a flexible set of activities that

[1] This online module was originally adapted by Bora Simmons and Renee Gracon from ***Professional Development of Environmental Educators: Guidelines for Excellence – Workshop Resources*** by Bora Simmons and Elizabeth Schmitz. It has been further updated with the 2025 publication of *Environmental Educator Knowledge & Skills: Guidelines for Excellence*.

introduce your students/participants to NAAEE's ***Environmental Educator Knowledge and Skills: Guidelines for Excellence***.

We encourage you to adapt the sequence of activities to your specific needs. The module can be used in both *synchronous* and *asynchronous* online instruction. Depending on your instructional objectives, audience, amount of time available, and online platform, varying sets of activities and activity sequences can be constructed. We assume, however, that you will play an important role as the instructor or facilitator. This module *has not been designed* as a stand-alone, self-paced instructional unit.

We developed two documents to support your online instruction: 1*) Instructor's Manual,* which includes information directed specifically to you as the instructor along with all of the activities and instructions for use by your students *(handouts* are found at the end of the *Instructor's Manual*) and 2) *Participant's Manual*, which only includes activities and their associated worksheets.

We also developed a set of PowerPoint presentations that you can use with your participants to introduce background information. Each of the PowerPoints includes notes that you can adapt for your presentation. In addition, we created narrated videos of each PowerPoint presentation for use in asynchronous instruction.

Descriptions of activities, printable worksheets (reproduced at the end of the *Instructor's Manual*) and follow-up questions are provided so that participants can complete much of the module on their own. Throughout there are, however, points where it is suggested that the instructor host the group either asynchronously (e.g., using a discussion board) or synchronously (e.g., using a live session via an online platform such as Webex, Zoom, Canvas, etc., and breakout rooms or chat functions).

In the balance of this *Instructor's Manual*, information *directed specifically to you, the instructor, is presented in italics and in* ***blue font***. None of this instructor-specific information is included in the *Participant's Manual*. Content of the *Participant's Manual* is reproduced in this manual using *black font* and participant activities are displayed in *boxes* ***outlined in green***.

Let's get started!

Welcome, How We Will Work Together and Other Logistics

To the instructor:

The module begins with a general welcome session and then moves into an overview of the ***Environmental Educator Knowledge and Skills: Guidelines for Excellence****. We recommend that you use a live session or create a video, introducing yourself to the participants and welcoming them to the course. You may also want to create a presentation that outlines:*

- ✓ *How you will be working together (synchronous or asynchronous)*
- ✓ *An introduction or orientation to the online platform you are using (e.g., Zoom, Canvas)*
- ✓ *How participants will "meet" one another*
- ✓ *Your timeline for meetings, due dates, and such*
- ✓ *How participants will access Handouts, videos, and other instructional materials*
- ✓ *How participants will communicate with you (e.g., email address) and with other participants*
- ✓ *How participants will use various Internet tools, such as Canva, Zoom, Google Docs, Google Slides, etc.*
- ✓ *Assessments and grading, if applicable*
- ✓ *Office hours, if applicable*
- ✓ *And any other logistics that will help your students orient*

Since the workshop includes somewhat difficult discussion at times, we encourage you to begin by setting ground rules or group norms. As an example, here's an adaptation of group norms established by the faculty at Antioch University New England: https://docs.google.com/document/d/1MqfqTTxjQpeqGmQ0dCvh7jlSMUnm6f5WMVxZXC7oY8c/edit?tab=t.0

Additionally, you will want to provide your participants with an overview of:

- ✓ *Module Objectives*
- ✓ *Module Outline*

Finally, we suggest that you take this opportunity to give your participants a bit of context and background before you start the module. Use the provided PowerPoints/videos to:

- ✓ *Provide an overview of the North American Association for Environmental Education (NAAEE),*
- ✓ *Introduce the National Project for Excellence in Environmental Education*
- ✓ *Introduce this set of guidelines, Environmental Educator Knowledge and Skills: Guidelines for Excellence, and how they are structured.*

Module Objectives

Upon completion of the online module, participants will be able to:

- ✓ Describe a set of environmental educator competencies
- ✓ Assess their own level of preparation as an environmental educator

- ✓ Reflect on their own need for professional development in environmental education using the *Environmental Educator Knowledge and Skills: Guidelines for Excellence*

Module Outline

Getting Started
- Welcome, How We Will Work Together, and Other Logistics
- PowerPoint/video: North American Association for Environmental Education
- PowerPoint/video: Introducing the Educator Guidelines
- PowerPoint/video: National Project for Excellence in Environmental Education
- Activity #1: Educator Guidelines Scavenger Hunt

Environmental Literacy
- Activity #2: My Environmental Literacy Portfolio
- Video: What is Environmental Literacy?

Foundations of Environmental Education
- Activity #3: History of Environmental Education Timeline
- Activity #4: Comparing environmental education and education for sustainable development

Professional Responsibilities of the Environmental Educator
- Activity #5: Do's and Don'ts

Commitment to Community, Collaboration, and Fairness
- Activity #6: Fostering a Sense of Belonging

Planning Environmental Education
- Activity #7: Analyzing Instructional Approaches

Implementing Environmental Education
- Activity #8: Educator Observation Rubric

Assessment and Evaluation
- Activity #9: Environmental Educator Self-Assessment
- Wrap-up and Final Reflections

NOTE: Underlined titles that are printed in **blue font** are active hyperlinks. By using the keystrokes "control click" you can access the document without cutting and pasting the URL into your browser.

Getting Started [45 minutes]

To the instructor:

After providing an overview to the online module (e.g., introductions, module schedule, objectives) it's time to jump into the ***Environmental Educator Knowledge and Skills: Guidelines for Excellence****.*

With your class, or asynchronously, view the short PowerPoint/video presentations, ***Introducing the North American Association for Environmental Education*** *(PowerPoint or MP4 file),* ***National Project for Excellence in Environmental Education*** *(PowerPoint or MP4 file), and* ***Introducing the Educator Guidelines*** *(PowerPoint or MP4 file).* ***NOTE:*** *PowerPoints and MP4 files are available in the online module folders.*

These videos/PowerPoint presentations:

- ✓ *Provide an overview of the North American Association for Environmental Education (NAAEE),*
- ✓ *Provide background information about the National Project for Excellence in Environmental Education, and*
- ✓ *Introduce this set of guidelines, Environmental Educator Knowledge and Skills: Guidelines for Excellence, and how they are structured.*

Participants will have an opportunity to dig into the guidelines further through ***Activity #1: Educator Scavenger Hunt****.*

Activity #1: Educator Scavenger Hunt

To the instructor:

For ***Activity #1: Educator Scavenger Hunt****, there are two different versions of* the handout. **Handout A.1** *is the participant's version****. Handout A.2*** *is the Instructor's Key. Both versions can be found at the end of the Instructor's Manual. Depending on your time and class structure, Activity #1 makes a good homework assignment.*

Activity #1: Educator Scavenger Hunt [20 minutes]

In this activity, you will complete a scavenger hunt as a way of becoming familiar with the ***Environmental Educator Knowledge and Skills: Guidelines for Excellence***.

Materials:

- ✓ ***Environmental Educator Knowledge and Skills: Guidelines for Excellence***
- ✓ **Educator Scavenger Hunt [Handout A.1]**

Procedure:

1. Download a copy of ***Environmental Educator Knowledge and Skills: Guidelines for Excellence*** from the NAAEE website by either clicking the underlined title or by going to: https://eepro.naaee.org/sites/default/files/eepro-post-files/Environmental-Educator-Knowledge-Skills-Guidelines-Excellence-2025-AC.pdf
2. Complete the **Educator Scavenger Hunt [Handout A.1]**.
3. Read pages 9-17 of ***Environmental Educator Knowledge and Skills: Guidelines for Excellence***.

Environmental Literacy [45 minutes]

To the instructor:

*The online module follows the sequence outlined in the **Educator Guidelines**, starting with **Key Characteristic #1: Environmental Literacy**. Briefly introduce your participants to **Key Characteristic #1** (page 19 of Environmental Educator Knowledge and Skills: Guidelines for Excellence).*

*Point out that **Key Characteristic #1** states "Educators understand that becoming environmentally literate is a journey that depends on developing awareness, appreciation, and knowledge of the interrelationships of the natural environment of which we are part. This literacy includes essential skills that enable individuals to make informed decisions and act on those decisions both individually and collectively. Educators understand the importance of the relationships among ecosystem health, community well-being, and long-term sustainability."*

*Use **Handout B [KC #1 Environmental Literacy]** to provide an overview of the environmental literacy competencies outlined in Key Characteristic #1:*

1.1 Awareness and appreciation

Educators build an appreciation that Earth is one living, dynamic community.

1.2 Earth processes and systems

Educators develop an understanding of Earth processes and systems (e.g., atmosphere, hydrosphere, geosphere, and biosphere) and how these systems interact with one another.

1.3 Human systems
Educators develop an understanding of human systems (e.g., social, economic, political, and cultural) and how individual and group action affects the long-term sustainability of Earth systems.

1.4 Application of systems thinking
Educators apply systems thinking to understand how human activities cause and mitigate environmental change and how environmental change affects long-term environmental sustainability at varying, interconnected levels (e.g., local, state/provincial, regional, tribal, national, and global).

1.5 Action strategies and skills
Educators apply skills for analyzing and investigating environmental concerns

1.6 Personal and civic responsibility
Educators build an understanding that everyone, individually and collectively, can make a difference and contribute to environmental solutions.

Tell the participants that there are various definitions or descriptions of environmental literacy available. As a quick introduction, show the NAAEE video, ***What is Environmental Literacy?***[2]*, by going to:*
https://www.youtube.com/watch?v=e1uCExDFAgI

After showing the video, ask participants to compare the video's description of environmental literacy and the framework outlined in Key Characteristic #1.

Activity #2: My Environmental Literacy Portfolio

To the instructor:

In ***Activity #2, My Environmental Literacy Portfolio****, participants will create an outline for a portfolio that highlights their environmental literacy achievements. Using the* ***Key Characteristic #1*** *guidelines [see Handout B], the participants will reflect on their own environmental literacy and the many ways they have developed it over the years. This activity is best assigned as homework. A group discussion can be conducted during the next class meeting.*

[2] *This video is from* ***Lesson 4*** *of NAAEE's online module* ***What is Environmental Education?****. Depending on the interest and experience of your participants, you may want to suggest they complete the entire module which can be accessed by going to:* https://eepro.naaee.org/learning/eelearn/eelearn-1-what-ee
It will take approximately two hours. ***NOTE:*** *Participants will need to create an* ***eePRO*** *profile at https://naaee.org. (****eePro*** *is FREE to use)*

Activity #2 My Environmental Literacy Portfolio [30 minutes]

Environmental literacy is developed over a lifetime. In this activity, you will reflect on your own level of environmental literacy and the many ways you developed it over the years.

Materials:

- ✓ **Key Characteristic #1 Environmental Literacy [Handout B]**
- ✓ **My Environmental Literacy Portfolio [Handout C]**
- ✓ Pencil or pen

Procedure:

1. Imagine that you are applying for a job that requires a high level of environmental literacy. As a first step in the job application process, you are asked to submit an outline **[Handout C]** of your full portfolio that would provide evidence of your accomplishments.
2. Review **Handout B**. Reflect on your environmental literacy strengths across the six guidelines.
3. For each of the six guidelines, think about all the ways you developed environmental literacy competencies over the years (e.g., formal coursework, workshops, job experiences, volunteering, community activities, personal reading, hobbies).
4. Use **Handout C** to outline the evidence you would submit in your portfolio (e.g., summer research assistant collecting and analyzing data related to local housing needs or Undergraduate ecology course).
5. Submit the completed **Handout C** to your instructor.

To the instructor:

*During the next class meeting, review **Handout C**. Ask for volunteers to share their evidence for each guideline. After all six guidelines have been discussed, ask participants to reflect on what they learned from the exercise. For example, you may want to ask the participants some of these questions:*

- *Across all six guidelines, what were the most common learning experiences (e.g., formal coursework, job experiences, volunteer efforts)?*
- *What was the least common?*
- *Was the one type of learning experience associated more with one guideline over another?*
- *What does this exercise tell you about your level of environmental literacy?*
- *What does it tell you about how you develop environmental literacy over your lifetime?*
- *Which guideline tends to have the most gaps in experience?*
- *Which types of experiences were the most impactful for your own environmental literacy development?*

Foundations of Environmental Education [45 minutes]

To the instructor:

*Transition to **Key Characteristic #2** by reminding the participants that it focuses on the Foundations of Environmental Education, including how EE evolved (pages 31-35 of Environmental Educator Knowledge and Skills: Guidelines for Excellence). Two different activities are provided: **Activity #3: History of Environmental Education Timeline** and alternatively **Activity #4: Comparing Environmental Education and Education for Sustainable Development**. Depending on your participants, time availability, and your objectives, select the most appropriate or ask them to complete both.*

If possible, use breakout rooms so that participants can work in small groups.

Activity #3 History of Environmental Education Timeline

To the instructor:

*In **Activity #3: History of Environmental Education Timeline** participants are given several events/organizations important to the history and development of environmental education as a field (from **Handout D.1**). They are asked to place these events/organizations in chronological order.*

*In advance of your class meeting, create a packet of timeline entries for each group (or individual if you are working asynchronously), using **Handout D.1: History of Environmental Education Timeline**. Each packet should include approximately 8-10 randomly selected entries. **Handout D.1** includes a total of 50 items. Each entry includes an event or the name of an organization important to the history of environmental education. Feel free to update this list and add events/organizations that may be meaningful to your region.*

***Please Note**: Although a mix of international events/organizations has been included, the focus is on the history of EE in the United States. Depending on your group, you may want to adjust the list of events/organizations.*

Activity #3 Environmental Education Timeline [15 minutes]

Organized efforts to educate the public on environmental concerns and solutions have a relatively short history. In this activity, you will explore some of the events and organizations that have been important to the development of environmental education as a field in the United States.

Materials:

- ✓ Packet of events/organizations assigned to you by the instructor
- ✓ Paper and pencil

Procedure:

1. On a blank sheet of paper, **draw** a timeline, starting in the year 1900 and continuing to the present. Divide the timeline into 10-year segments. Alternatively, you may use the online form given to you by your instructor.
2. Read each of the entries you have been assigned. Think about why each event/organization is important to the development of environmental education.
3. Put each of the entries into chronological order and assign them to a decade on the timeline. Be ready to explain your reasoning.
4. With others in your class, compile the entries into a single timeline.

To the instructor:

After individuals/groups have created their timelines, bring the participants back together as a large group. Ask participants to add their timeline entries to the appropriate places on a shared timeline (a Google doc can work well for this). Once each group has placed their own entries in chronological order, bring the whole group back together again. Working as a whole group, slowly scroll through the timeline, starting with the year 1900. Check their work using ***Handout D.2*** *and periodically ask if anyone can tell the rest of the group more about selected entries (i.e., the assigned group can read the description of the entry from their list). Throughout the activity:*

- ✓ *Check for accuracy by asking if there are events or organizations not placed in the proper point on the timeline. If a change is proposed, ask them to explain their thinking.*
- ✓ *Take the time to correct the timeline if any of the events or organizations are still out of place.*
- ✓ *Ask participants to explain why particular entries are important to the development of environmental education.*
- ✓ *Depending on their responses, ask the participants if there are entries that highlight the development of networks, the interdisciplinary nature of environmental education, the importance of convening individuals at conferences or conventions, or the use of legislation to support environmental education.*

Point out to participants how Guideline 2.1: Fundamental Characteristic and Goals of Environmental Education and Guideline 2.3: The Evolution of the Field relate to their timeline. Also point out that Resource #2, page 93, provides more information about the history and philosophy of environmental education, including founding documents of environmental education (Stockholm Declaration, Belgrade Charter, and Tbilisi Declaration) and other key international conferences and reports.

Before moving on, take a moment to review Guideline 2.2: Environmental Education Practices.

Depending on how much time is available, show NAAEE's YouTube videos or assign them as homework (each video is less than eight minutes long):

- ✓ ***Oral History – International***
  https://eepro.naaee.org/learning/eelearn/eelearn-2-history-ee/lesson-1-participatory-history/oral-history-international
- ✓ ***Oral History – United States***
  https://eepro.naaee.org/learning/eelearn/eelearn-2-history-ee/lesson-1-participatory-history/oral-history-united-states

For a deeper dive, assign the complete eeLEARN module: The History of Environmental Education, https://eepro.naaee.org/learning/eelearn/eelearn-2-history-ee

Activity #4: Comparing Environmental Education and Education for Sustainable Development

Environmental education did not evolve in isolation. It has built from and contributed to the evolution of allied education fields. Understanding how EE is similar to and different from these fields can be instructive. In this activity, participants will compare two fields, environmental education and education for sustainable development.

To the instructor:

- Tell participants that environmental education did not evolve in isolation. There are a number of associated fields of education.
- Ask the group: Given your experience, what are some associated fields of education that relate to environmental education? Turn their attention to Resource #3 Educational Movements Related to EE (p. 98). Ask them if there are educational movements that they would add to the list? Are there any they are not familiar with?
- Point out the Did You Know? box (p. 10) that outlines definitions for environmental education, environmental literacy, and education for sustainable development.
- Tell them that in this activity they will be comparing environmental education and education for sustainable development (ESD).

Activity #4 Comparing Environmental Education and Education for Sustainable Development [15 minutes]

Environmental education did not evolve in isolation. It has built from and contributed to the evolution of a number of education fields. Understanding how EE is similar to and different from these fields can be instructive. In this activity, participants will compare two fields, environmental education and education for sustainable development.

Materials:

- ✓ **Handout E:** Comparing Environmental Education and Education for Sustainable Development
- ✓ Paper and pencil

1. Use the chart (below) to compare environmental education and education for sustainable development.
2. Be sure to identify the characteristics that apply to both environmental education and education for sustainable development in the middle column.

Characteristics of Environmental Education	Characteristics of Both	Characteristics of Education for Sustainable Development

To the instructor:

- Ask participants to share some of the characteristics of Environmental Education and Education for Sustainable Development.
- What characteristics do they share? Did any surprise you?
- Ask participants to look back at Resource #3 Educational Movements Related to EE (p. 98). Which educational movement do you identify yourself with the most? Why?

Professional Responsibilities of the Environmental Educator [45 minutes]

To the instructor:

*Transition to **Key Characteristic #3**. Remind the participants that **Key Characteristic #3: Professional Responsibilities of the Environmental Educator** focuses on environmental education as a profession and the importance of maintaining high standards for instruction and professional conduct (pp. 37-49).*

Activity #5: Do's and Don'ts

To the instructor:

*In **Activity #5: Do's and Don'ts**, participants will discuss their professional responsibilities while facilitating discussions about controversial issues. Distinguishing what's in-bounds and out-of-bounds when considering controversial issues often results in a lively discussion. Because it impacts conceptions of professional roles and responsibilities, it deserves a thorough discussion.*

Participants begin their exploration by thinking about what an educator should and shouldn't do when teaching about controversial issues. To help the participants take a step back from their own experiences, they are first asked to consider a teaching setting that may be an arm's length away from their day-to-day activities – the civics classroom.

***Activity #5** begins by asking participants to consider recommendations they might give to a civics teacher who is engaging students in a discussion around controversial issues such as gun rights, whether the death penalty should be abolished, or whether animal testing should be banned.*

Then, participants are asked to consider their lists with a different lens – that of an environmental educator engaging students in a discussion of controversial issues such as fracking, GMOs, deforestation, and climate change or a locally relevant environmental issue.

In preparation for this activity, you may want to (re)read recommendations made by various educators about teaching controversial issues. Depending on your participants, you may want to assign one or more of the following as homework:

- ✓ *University of Michigan, CRLT, Guidelines for Discussing Difficult or High-Stakes Topics*
  http://crlt.umich.edu/publinks/generalguidelines

- ✓ *Brown University Department of History, Guidelines for Participating in Classroom Discussions [**Note:** This is a Google Doc. Some participants may not be able to access it.]* https://docs.google.com/document/d/1LFRrfP5GowHyl0Pl3_JmCJBYmDfvmd6Qj4ArjIy2PqE/edit

- ✓ *CLEAN: Climate Literacy and Energy Awareness Network, Controversy in the Classroom: Strategies for Managing Climate Change Discourse.* https://cleanet.org/clean/literacy/tools/controversy.html

Activity #5: Do's and Don'ts [20 minutes]

Civics teachers often engage their students in discussions around controversial issues, such as gun rights, whether the death penalty should be abolished, or whether animal testing should be banned. In this exercise, you will create a list of "dos" and "don'ts" for civics teachers to help them navigate teaching about controversies.

Materials

- ✓ **Handout F**
- ✓ Paper and pencil/pen

Procedure

1. Read the scenario outlined in **Handout F**.
2. Imagine you are giving some guidance to civics teachers who will be teaching about a controversial issue that they care deeply about, as individuals. What would be on your "do's" and "don'ts" list for high-quality instruction?
3. Write down your list of "do's" and "don'ts"
4. With others in your class, compile a group list of "do's" and "don'ts"
5. Revisit your "do's" and "don'ts" list. With an environmental education lens:
    - What items would you add to your "do's" and "don'ts" list? Why?
    - What would you delete or change? Why?
6. Update your list.

To the Instructor:

Tell the participants that this activity focuses on teaching about controversial issues in a civics classroom. Display the scenario. After the participants have read the scenario, ask them to work individually to create an initial list of "do's" and "don'ts" for civic teachers. For example, don't take sides or use sarcasm. Do establish ground rules and a clear purpose for the discussion.

When most of the participants have completed their lists, assign participants to breakout rooms, if possible. Tell them that they should:

- *Share their individual "do's" and "don'ts" list with the others in their group, and*
- *Create a group "do's" and "don'ts" list*

After most of the breakout rooms have had a chance to discuss their lists, bring everyone back together.

- *Ask groups to share one to two items from their list. If possible, create a common list on your shared computer screen so that the participants can read the growing list.*
- *Continue, calling on different groups/individuals, until most have contributed.*
- *Give participants a chance to ask questions of each other and comment on individual items.*

Now, ask your participants to consider the do's and don'ts list with a different lens – that of an environmental educator engaging students in a discussion around controversial issues such as fracking, GMOs, deforestation, and climate change or a locally relevant environmental issue.

- *What items would you add to your dos and don'ts list? Why?*
- *What would you delete or change? Why?*

Remind the participants that as with civics teachers, environmental educators may have deeply held personal perspectives on these issues. Ask the participants:

- *What might help you clarify when you are playing which role?*
- *How are the professional responsibilities of a civics teacher and an environmental educator similar and different?*

As a final note, ask participants to scan the five guidelines in this Key Characteristic. Which one(s) speak to the issue of teaching about controversial issues?

Commitment to Community, Collaboration, and Fairness [40 minutes]

To the instructor:
Transition to Key Characteristic #4: Commitment to Community, Collaboration, and Fairness (pp. 51-54). This Key Characteristic focuses on the educator's understanding and acceptance that instruction with a focus on community, collaboration, and fairness is crucial to environmental education.

Activity #6: Foster a sense of belonging

To the instructor:
Point out to the participants that Guideline 4.2 focuses on collaboration and belonging and suggests that educators are responsible for creating learning environments that foster a sense of belonging. Tell the participants that they will explore ways of creating learning environments that foster a sense of belonging.

- Ask the participants to think for a moment about the term 'belonging.' Ask them to jot down the first ideas that come to their minds. What is belonging?
- Ask for volunteers – participants willing to share what they think about when someone talks about belonging.
- Working in small groups or individually, tell the participants that their job is to design a poster or display for a teacher's lounge or education classroom (think university classroom). This poster's goal is to help educators think about what it means to be committed to collaboration and belonging.
- Give the groups approximately 15 minutes to design their poster.

Activity #6: Foster a sense of belonging

In this activity you will explore the idea of belonging and how educators can proactively foster a sense of belonging.

Materials

✓ Paper and markers or Google Slide

Procedure

1. When you think about "belonging," what are the first ideas that come to your mind? What is belonging? What does it mean if an educational environment fosters a sense of belonging? Jot down your thoughts.
2. Design a poster or display for a teacher's lounge or education classroom (think university classroom). This poster's goal is to help educators think about what it means to be committed to collaboration and belonging.
3. Take a photo of your poster (if you created it on paper).

To the instructor:

Collect the posters and arrange them so they can be shared online (Google Slides is particularly good for this). Conduct a virtual gallery walk. Allow participants to scroll through the posters at their own pace. Encourage them to post comments. After participants have visited most of the posters:

- Ask them if they have any questions or comments.
- Ask them if they would change anything on their poster.
- Were there considerations that surprised them?

Planning Environmental Education [45 minutes]

To the instructor:

*Transition to **Key Characteristic #5: Planning Environmental Education** by quickly reviewing its six guidelines (pp. 57-67 of Environmental Educator Knowledge and Skills: Guidelines for Excellence).*

Activity #7: Analyzing Instructional Approaches

To the instructor:

Activity #7: Analyzing Instructional Approaches *works well as either an asynchronous activity or as a homework assignment with a follow up class discussion. If* ***Activity #7*** *has been assigned as homework, ask the participants to email a copy of their poster to you before the next scheduled meeting. As an alternative, you can ask them to use Google Slides to create their poster.*

Activity #7: Analyzing Instructional Approaches [30 minutes]

In this activity, you will explore widely used instructional approaches and consider how they can be adapted for different audiences, settings, and instructional technologies.

Materials

- ✓ Internet access
- ✓ *Environmental Educator Knowledge and Skills: Guidelines for Excellence*
- ✓ **Handout G**
- ✓ Paper and pen/pencil

Procedure

1. Take a moment to think about one of your favorite instructional approaches or teaching methods. What makes it so special for you?
2. Brainstorm common instructional strategies used in environmental education. Write these on a piece of paper.
3. Read ***Key Characteristic #5: Planning Environmental Education*** (pp. 57-67) in the *Educator Guidelines*.
4. Compare your list of instructional strategies (Step #2) to the list of Approaches to Environmental Education Instruction (Resource #8, pp.106-108). You may also want to take a look at the approaches used to enhance civic engagement (Resource #14, pp. 121-123).
5. Select one instructional strategy to explore further, either from your list or the lists in the *Educator Guidelines*.
6. Complete **Handout G**.
7. Email your completed poster to your instructor before the next class meeting.

To the instructor:

During your next meeting, ask selected participants to share their posters with the others. Ask them to provide a brief overview of what they learned about the specific instructional approach. Open the discussion for questions and comments:

- *Which of the instructional approaches seems best for use with young learners (preschoolers)? Why?*

- *Which might be most appropriate for adult learners? Why?*
- *Which of the instructional approaches uses outdoor and community settings most effectively? Which are best used inside the classroom?*
- *Which are dependent on technology? Which seem to use technology most effectively?*
- *Which instructional approaches might advantage or disadvantage specific types of learners (e.g., those learning English as a second language, those with special needs)? How could you adapt the instructional approach to meet the needs of all learners?*
- *What are some other criteria you could use in selecting an instructional approach (e.g., time available, size of group, special needs)?*

Implementing Environmental Education [45 minutes]

To the instructor:

*Transition to **Key Characteristic #6: Implementing Environmental Education** (pp. 69-76 of Environmental Educator Knowledge and Skills: Guidelines for Excellence). Remind participants that **Key Characteristic #6** focuses on the ability of educators to create supportive, safe, relevant, and responsive learning environments that are welcoming to the whole learning community.*

Activity #8: Educator Observation Rubric

To the instructor:

*This activity works best by splitting participants into small groups, with each group assigned one of the guidelines under **Key Characteristic #6.** It is recommended that you assign at least three of the guidelines (6.2, 6.4, 6.6). If you cannot split the participants into small groups, we suggest that you focus on one guideline at a time (starting with 6.2), asking participants to work individually and then share their ideas with the whole group. Make sure you give everyone an opportunity to share and ask clarifying questions.*

Begin the activity by asking participants to think about a favorite teacher or learning experience.

- *What was so special about the teacher?*
- *What was so special about the learning experience?*

Now, ask the participants to think about a learning experience where you did not feel included.

- *What made you feel excluded or unwelcome?*

*Introduce the activity by telling participants that they will be creating a rubric for one of the three selected guidelines listed under **Key Characteristic #6: Implementing***

***Environmental Education (6.2, 6.4, 6.6)**. Explain that the rubric will be used to gauge novice educators' ability to apply the assigned guideline.*

*Display the rubric, **Handout H**, and tell the participants that their task is to fill in the rubric by identifying at least three criteria that shape highly successful teaching. Taking one criterion at a time, they should write a description for each of the four levels (e.g., Highly Effective, Effective, Improvement Necessary, and Does Not Meet Expectation). Each should describe a different level of success for the selected criterion. Point out the example criterion, Organizing physical space, and how it is elaborated across the four levels.*

Finally, ask participants to be prepared to discuss how they addressed the inclusion of all learners in their rubric.

Activity #8: Educator Observation Rubric [30 minutes]

In this activity, you will develop a rubric for one of the three guidelines listed under *Key Characteristic #6: Implementing Environmental Education.*

Materials

- ✓ Copy of *Environmental Educator Knowledge and Skills: Guidelines for Excellence*
- ✓ **Educator Observation Rubric [Handout H]**
- ✓ Paper and pencil/pen

Procedure

1. Think about your favorite teacher or learning experience. What was so special about the teacher? What was so special about the learning experience?
2. Think about a learning experience where you did not feel included. What made you feel excluded or unwelcome?
3. Imagine that you are mentoring novice environmental educators. As a mentor, you will want to observe the novice educators' teaching and provide constructive feedback to them on the degree to which they are addressing the criteria. established in **Key Characteristic #6: Implementing Environmental Education**
4. For your assigned guideline (e.g., guideline 6.2, 6.4, 6.6), use **Handout H** to create a rubric that could be used to gauge the novice educator's ability to apply the assigned guideline. Be sure to indicate how you will address inclusion of ***all*** learners.

To the instructor:

Once breakout groups have completed their task, bring them back together for a large group discussion. Ask each group to provide a quick overview of their rubric. Provide an opportunity for other participants to comment or ask questions.

Once all the groups have shared their work, ask the participants to take a moment or two to think about their own teaching. If someone observed one of your typical classes:

- *How would you rate?*
- *What are your strengths?*
- *What are opportunities for improvement and how would you address them?*

Assessment and Evaluation [45 minutes]

To the instructor:

Tell the participants that you are going to move on to the final topic, ***Key Characteristic #7: Assessment and Evaluation*** *(pages 79-84 of Environmental Educator Knowledge and Skills: Guidelines for Excellence). Introduce the topic by providing a brief overview of* ***Key Characteristic #7.***

Start the discussion by asking participants about learner assessment:

- *Who can provide a quick definition of learner assessment?*

  Depending on the definition(s) offered, you may want to share this definition with the participants:

  Assessment*—Assessment refers to the wide variety of methods or tools that educators use to evaluate, measure, and document the academic readiness, learning progress, skill acquisition, or educational needs of students. [p. 81]*

- *What are some examples of how you have used learner assessment in your own teaching? Ask a few volunteers to describe their experiences.*

Display ***Handout I, Classroom Garden****. Explain that this is a simple activity outline for K-4 grade students. Walk the participants through the activity or ask the participants to read it to themselves.*

Once they are familiar with the activity, ask them to look at the activity objective.

- *Given this objective, what student learning (knowledge, skills, affect) could you assess?*
- *What are some different ways you could assess student learning?*

Wrap up your discussion of assessment by asking:

- *What are some of the benefits of incorporating assessment into environmental education?*
- *What are the major difficulties of assessment? For each difficulty offered, ask the participants if anyone has suggestions for addressing that difficulty.*

Transition to the topic of evaluation by reminding the participants that ***Key Characteristic #7*** *focuses on both assessment and evaluation. Then, ask if anyone can provide a quick definition of evaluation?*

Depending on the definition(s) offered, you may want to share this definition with the participants:

Evaluation*—Program evaluation is a systematic method for collecting, analyzing, and using information to answer questions about projects, policies,*

and programs, particularly about their effectiveness and efficiency. This definition focuses on the question of whether the program, policy or project has, as indicated, the intended effect. However, equally important are questions such as how the program could be improved, whether the program is worthwhile, whether there are better alternatives, if there are unintended outcomes, and whether the program goals are appropriate and useful. [p. 82]

*Show the NAAEE video **Key Concepts of Evaluation**. Access the video by going to: https://eepro.naaee.org/learning/eelearn/eelearn-3-research-and-evaluation/lesson-2-program-evaluation/key-concepts NOTE: This video is part of NAAEE's eeLEARN module focusing on **Research and Evaluation**: https://eepro.naaee.org/learning/eelearn/eelearn-3-research-and-evaluation*

Depending on your participants, you may want to suggest they complete this module on their own. It takes about four hours to complete.

After they view the video, ask the group:

- *What are the major benefits of program evaluation?*
- *Why would you conduct a program evaluation?*
- *Ask if any of them have conducted an evaluation? Ask them to describe their experiences briefly.*
- *What are some other ways you can incorporate evaluation into environmental education instruction?*

Activity #9: Environmental Educator Self-Assessment and Professional Development Plan

To the instructor:

***Activity #9: Environmental Educator Self-Assessment and Professional Development Plan** is designed as a culminating activity that is best completed as homework. Explain to the participants that self-reflection is a type of assessment and they are being asked to appraise their professional development needs. The self-assessment will be completed online. Be sure to provide a due date.*

*To expand this activity, you may want to ask your participants to complete a detailed professional development plan. **Handout K**, developed by the Virginia Association for Environmental Education, provides an example of a process that encourages reflection.*

As a Reminder

The ***Environmental Educator Knowledge and Skills: Guidelines for Excellence*** is just one of the publications in the ***Guidelines for Excellence series***. Visit the ***NAAEE*** website to learn more about the ***Guidelines for Excellence*** and how you can continue your professional development. NAAEE sponsors webinars, an annual conference, and much more. You may also want to join ***eePRO***, the online platform for environmental education professional development.

Activity #9: Environmental Educator Self-Assessment and Professional Development Plan [30 minutes]

As a culminating exercise, and an example of assessment, you will be asked to reflect further on the six Key Characteristics and your own capacities as an environmental educator.

Materials

- ✓ ***Environmental Educator Knowledge and Skills: Guidelines for Excellence***
- ✓ **Environmental Educator Self-Assessment [Handout J]**
- ✓ Paper and pencil/pen

Procedure

1. Review pages 12-13 of ***Environmental Educator Knowledge and Skills: Guidelines for Excellence.***
2. Complete **Handout J: Environmental Educator Self-Assessment**
3. Look back at your self-assessment. What are your strengths? What needs to be developed further?
4. Were you surprised by the results of your self-assessment? If so, what surprised you?
5. Label your completed **Self-Assessment** with your name and today's date.
6. Post your completed **Self-Assessment** to your instructor.

To the instructor:

Depending on your goals and setting, you may want to schedule a final session (synchronous or asynchronous) to wrap up the experience and ask the participants to complete a course evaluation: https://docs.google.com/forms/d/e/1FAIpQLSdgr_PuObpWnFuwiet6Ukrx5zhX4pWeWuhmGiLbJ4LYaII9Lg/viewform?usp=header

Handout A.1
Activity #1: Educator Scavenger Hunt

1. ***Environmental Educator Knowledge and Skills: Guidelines for Excellence*** is part of a continuing series of documents published by …

   _____

2. (True or False) The guidelines **ARE NOT** designed to apply to full-time environmental educators and those for whom environmental education will be among other responsibilities. _____

3. Page 11 describes **How to Use the Guidelines**. Each Key Characteristic is further described by _____ and _____.

4. The ***Educator Guidelines*** are organized into **7 Key Characteristics**, each of which describes a knowledge or skills area. Fill in the complete title of each Key Characteristic.
   a. Key Characteristic 1:

      _____
   b. Key Characteristic 2:

      _____
   c. Key Characteristic 3:

      _____
   d. Key Characteristic 4:

      _____
   e. Key Characteristic 5:

      _____
   f. Key Characteristic 6:

      _____
   g. Key Characteristic 7:

      _____

5. The ***Educator Guidelines*** include three organizing categories and seven key characteristics. Fill in the complete title for each of three organizing categories.
   a. _____
   b. _____
   c. _____

6. Page 14 suggests eight essential **Underpinnings of Environmental Education**. Which of these key principles do you feel is the most essential, and why?

   _____

7. Which of the following is **NOT** considered part of the **Instructional Vision of Environmental Education**? _____

A. *EE draws on and advances broader educational goals and instructional methods*
B. *Instruction should engage the learner in the process of building knowledge and skills and be guided in part by the student's interests.*
C. *Environmental education is best taught in the K-12 classroom.*
D. *Environmental education provides opportunities for learners to enhance their capacity for independent thinking and effective, responsible action.*

8. **Key Characteristic #3, guideline 3.2**, the third indicator (3rd bullet point) suggests that environmental educators should be able to analyze and select materials that together present a _____, _____, _____, and _____.

9. **Key Characteristic #6: Implementing Environmental Education** states that environmental educators, through their instructional practices, create supportive, safe, relevant, and responsive learning environments that are welcoming to the whole learning community. What are some strategies you use to engage your learners in relevant open inquiry and investigation?
   _____

10. Some **Approaches to Environmental Education Instruction** are presented on pages 106-108. From the approaches listed, which would you **NOT** be able to put into action? _____

11. (True or False) Seven sets of guidelines have been published. Hard copies can be purchased from NAAEE or **downloaded for free** from the NAAEE website.

Handout A.2
Activity #1: Educator Scavenger Hunt
Answer Key

1. ***Environmental Educator Knowledge and Skills: Guidelines for Excellence*** is part of a continuing series of documents published by … North American Association for Environmental Education (NAAEE)

2. (True or False) The guidelines **ARE NOT** designed to apply to full-time environmental educators and those for whom environmental education will be among other responsibilities. FALSE

3. Page 11 describes **How to Use the Guidelines**. Each Key Characteristic is further described by guidelines and indicators.

4. The ***Educator Guidelines*** are organized into **7 Key Characteristics**, each of which describes a knowledge or skills area. Fill in the complete title of each Key Characteristic.
    b. Key Characteristic 1: Environmental Literacy
    c. Key Characteristic 2: Foundations of Environmental Education
    d. Key Characteristic 3: Professional Responsibilities of the Environmental Educator
    e. Key Characteristic 4: Commitment to Community, Collaboration, and Fairness
    f. Key Characteristic 5: Planning Environmental Education
    g. Key Characteristic 6: Implementing Environmental Education
    h. Key Characteristic 7: Assessment and Evaluation

5. The ***Educator Guidelines*** include three organizing categories and seven key characteristics. Fill in the complete title for each of three organizing categories.
    a. Content Knowledge and Skills
    b. Foundations, Responsibilities, and Commitments
    c. Design and Implementation

6. Page 14 suggests eight essential **Underpinnings of Environmental Education**. Which of these key principles do you feel is the most essential, and why? Answers will vary.

7. Which of the following is **NOT** considered part of the **Instructional Vision of Environmental Education**? C

    A. EE draws on and advances broader educational goals and instructional methods

B. *Instruction should engage the learner in the process of building knowledge and skills and be guided in part by the student's interests.*
C. *Environmental education is best taught in the K-12 classroom.*
D. *Environmental education provides opportunities for learners to enhance their capacity for independent thinking and effective, responsible action.*

8. **Key Characteristic #3, guideline 3.2**, the third indicator (3rd bullet point) suggests that environmental educators should be able to analyze and select materials that together present a range of world views, experiences, viewpoints, and ethical positions.

9. **Key Characteristic #6: Implementing Environmental Education** states that environmental educators, through their instructional practices, create supportive, safe, relevant, and responsive learning environments that are welcoming to the whole learning community. What are some strategies you use to engage your learners in relevant open inquiry and investigation? Answers will vary.

10. Some **Approaches to Environmental Education Instruction** are presented on pages 106-108. From the approaches listed, which would you **NOT** be able to put into action? Answers will vary.

11. (True or False) Seven sets of guidelines have been published. Hard copies can be purchased from NAAEE or **downloaded for free** from the NAAEE website. True

Handout B
Key Characteristic #1: Environmental Literacy

Educators understand that becoming environmentally literate is a journey that depends on developing awareness, appreciation, and knowledge of the interrelationships of the natural environment of which we are part. This literacy includes essential skills that enable individuals to make informed decisions and act on those decisions both individually and collectively. Educators understand the importance of the relationships among ecosystem health, community well-being, and long-term sustainability.

1.1 Awareness and appreciation
Educators build an appreciation that Earth is one living, dynamic community.

1.2 Earth processes and systems
Educators develop an understanding of Earth processes and systems (e.g., atmosphere, hydrosphere, geosphere, and biosphere) and how these systems interact with one another.

1.3 Human systems
Educators develop an understanding of human systems (e.g., social, economic, political, and cultural) and how individual and group action affects the long-term sustainability of Earth systems.

1.4 Application of systems thinking
Educators apply systems thinking to understand how human activities cause and mitigate environmental change and how environmental change affects long-term environmental sustainability at varying, interconnected levels (e.g., local, state/provincial, regional, tribal, national, and global).

1.5 Action strategies and skills
Educators apply skills for analyzing and investigating environmental concerns

1.6 Personal and civic responsibility
Educators build an understanding that everyone, individually and collectively, can make a difference and contribute to environmental solutions.

Handout C
Activity #2 My Environmental Literacy Portfolio

Environmental literacy is developed over a lifetime. In this activity, you will reflect on your own level of environmental literacy and the many ways you developed it over the years.

Procedure:

1. Imagine that you are applying for a job that requires a high level of environmental literacy. As a first step in the job application process, you are asked to submit an outline **[Handout C]** of your full portfolio that would provide evidence of your accomplishments.
2. Review **Handout B**. Reflect on your environmental literacy strengths across the six guidelines.
3. For each of the guidelines, think about all the ways you developed environmental literacy competencies over the years (e.g., formal coursework, workshops, job experiences, volunteering, community activities, personal reading, hobbies).
4. Outline the evidence you would submit in your portfolio (e.g., summer research assistant collecting and analyzing data related to local housing needs or Undergraduate ecology course). For each guideline, list up to four examples of evidence.
5. Submit the completed **Handout C** to your instructor.

Portfolio Outline

1.1 Awareness and appreciation

[*Example: Going for walks with friends. Keeping a container garden on my balcony.*]

1.
2.
3.
4.

1.2 Earth processes and systems

[*Example: Undergraduate course in ecology. Job as a wildlife biologist.]*

1.
2.
3.
4.

1.3 Human Systems

[*Example: Intern at a local food pantry.]*

1.
2.
3.
4.

1.4 Systems Thinking

[*Example: Summer job working with low-income residents to winterize their homes.]*

1.
2.
3.
4.

1.5 Action strategies and skills

[*Example: Volunteering to share information about data center energy usage*.]

1.
2.
3.
4.

1.6 Personal and Civic Responsibility

[*Example: Tabling at an outdoor festival to teach participants how to properly recycle*.]

1.
2.
3.
4.

Handout D.1
Activity #3: History of Environmental Education Timeline

AMERICAN NATURE STUDY SOCIETY (ANSS)
ANNS was organized to promote critical investigation of all phases of nature-study in schools, especially all studies of nature in elementary schools. ANSS was devoted to the appreciation and understanding of our natural world. ANSS' memorable seven-word slogan: **Excellence in Nature Study, Writing and Appreciation** gave it focus for a century. ANSS' publications, *Nature Study Review* and then, *Nature Magazine*, became a magnet for nature writers.

SOIL CONSERVATION SERVICE
Hugh Bennett, director of the US Soil Erosion Service spoke to Congress about the need to end destructive farming and ranching practices. As if on cue, the chamber was blackened by a cloud of soil that had blown in from the Great Plains states, a distance of 2,000 miles. Bennett's point had been made more powerfully than any words could express. Less than 2 weeks after that episode Congress passed the bill creating the Soil Conservation Service. Conservation, and the education for its need, had finally become a cause célèbre in the USA.

NATIONAL EDUCATION ASSOCIATION
The National Education Association assumes a leadership role for conservation education in the schools.

WISCONSIN CONSERVATION EDUCATION STATUTE
Wisconsin becomes the first state to enact a state statute requiring preservice teachers to have "… adequate preparation in the conservation of natural resources."

IUCN – FIRST DOCUMENTED USE OF TERM ENVIRONMENTAL EDUCATION
Thomas Pritchard, Deputy Director of the Nature Conservancy in Wales, uses the term "environmental education" at the Conference for the Establishment of the International Union for the Protection of Nature (IUCN) in Paris. This is perhaps the first public professional use of the term.

CONSERVATION EDUCATION ASSOCIATION
The Conservation Education Association is formed to support the many educators working in the field of conservation education.

ASSOCIATION OF INTERPRETIVE NATURALISTS
The Association of Interpretative Naturalists (now the National Association for Interpretation) is formed.

RURAL STUDIES ASSOCIATION
Rural Studies Association, now known as the National Association for Environmental Education (NAEE), is founded in the United Kingdom.

RANGER RICK
The National Wildlife Federation publishes the first edition of *Ranger Rick's Nature Magazine* which is still going over 50 years later.

COUNCIL FOR ENVIRONMENTAL EDUCATION (UNITED KINGDOM)
The Council for Environmental Education (CEE) is the national strategic organization for environmental education in England. CEE's membership includes 73 national organizations and an ever-increasing, diverse network of organizations with interests in education, the environment and sustainable development.

ENVIRONMENTAL EDUCATION (JOURNAL)
Professor Clay Schoenfeld begins the journal, *Environmental Education*, later renamed *The Journal of Environmental Education*.
Dr. William Stapp and his students at the University of Michigan formally develop and publish a definition of "environmental education" in the first edition of the journal.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
The National Environmental Policy Act (P. L. 91-190) is passed. "The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality."

EARTH DAY
Gaylord Nelson, at the time a US Senator from Wisconsin, had for some time envisioned an environmental teach-in (modeled on civil rights and antiwar sit-ins) that would raise public awareness on critical environmental issues. Denis Hays, a Harvard law student collaborated with Nelson in enlisting the aid of campus activists from across the country for an environmental teach-in that became known as Earth Day. It involved an estimated 20 million people with participation by nearly 1,500 college campuses.

WESTERN REGIONAL ENVIRONMENTAL EDUCATION COUNCIL (WREEC)
WREEC (now the Council for Environmental Education) is created as a "… unique effort to create a partnership and network between education and natural resource professionals in support of environmental education."

ADDRESS TO CONGRESS BY A PRESIDENT OF THE U.S.
It is also vital that our entire society develop a new understanding and a new awareness of man's relation to his environment—what might be called "environmental literacy." This will require the development and teaching of environmental concepts at every point in the education process.

NATIONAL ENVIRONMENTAL EDUCATION ACT
The National Environmental Education Act authorizes the creation of an Office of Environmental Education in the U.S. Dept. of Health, Education and Welfare; establishment of a National Advisory Council for environmental education; and establishment of a domestic grants program

NATIONAL ASSOCIATION FOR ENVIRONMENTAL EDUCATION
The National Association for Environmental Education (now the North American Association for Environmental Education or NAAEE) is founded. NAAEE is a professional association for environmental educators.

UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT
United Nations Conference on the Human Environment results in a declaration containing 26 principles. Principle 19 of the Stockholm Declaration specifically calls for "education in environmental matters, for the younger generation as well as adults." Recommendation 96 calls for the provision of environmental education as a means to address environmental issues worldwide.

INTERNATIONAL WORKSHOP ON ENVIRONMENTAL EDUCATION
Held in Belgrade, Yugoslavia and sponsored by the UNESCO, the workshop resulted in what became known as The Belgrade Charter. The Belgrade Charter built on the framework of Stockholm and described the goals, objectives, audiences, and guiding principles of EE and proposed what has become the most widely accepted definition of EE: *Environmental education is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and which has the knowledge, attitudes, motivations, commitments, and skills to work individually and collectively toward solutions of current problems and the prevention of new ones.*

PROJECT LEARNING TREE
Western Regional Environmental Education Council (now the Council for Environmental Education) and the American Forest Institute (now the American Forest Foundation) develop the environmental education program Project Learning Tree.

INTERGOVERNMENT CONFERENCE ON ENVIRONMENTAL EDUCATION
The definitive codification of EE as an international enterprise ultimately came out of the world's first Intergovernmental Conference on Environmental Education held in Tbilisi, Georgia, USSR. The document now known as *The Tbilisi Declaration* was formulated during this conference and in many quarters remains the definitive statement on what EE is and ought to be.

AUSTRALIAN ASSOCIATION FOR ENVIRONMENTAL EDUCATION
Australian Association for Environmental Education is founded.

FOUNDATION FOR ENVIRONMENTAL EDUCATION
Members of the European delegations to Tbilisi found the Foundation for Environmental Education in Europe to implement the conference recommendations. This organization later expands beyond Europe and currently manages a number of international programs, including Eco-Schools, Green Key, Blue Flag, Learning About Forests, and Young Reporters.

ENVIRONMENTAL EDUCATION ASSOCIATION OF SOUTHERN AFRICA
Environmental Education Association of Southern Africa is founded.

PROJECT WILD
WREEC and the Western Association of Fish and Wildlife Agencies develop Project WILD. Project WILD sponsors conservation and environmental education programs with a focus on wildlife for grades K-12.

CENTER FOR ENVIRONMENTAL EDUCATION
Centre for Environment Education (CEE) was established as a Centre of Excellence of the Ministry of Environment and Forests, Government of India. As a national institution, CEE's mandate is to promote environmental awareness nationwide.

BRUNTLAND REPORT
The World Commission on Environment and Development publishes the *Brundtland Report*. Also known as *Our Common Future*, this report introduced the idea of sustainable development in which environmental protection and economic growth are viewed as interdependent concepts.

UNITED CHURCH OF CHRIST COMMISSION FOR RACIAL JUSTICE
The United Church of Christ's Commission for Racial Justice issues the report Toxic Wastes and Race in the United States: A National Report on the Racial and Socioeconomic Characteristics of Communities with Hazardous Waste Sites.

RHODES UNIVERSITY, SOUTH AFRICA
The Murray & Roberts Chair of Environmental Education is founded at Rhodes University in Cape Town, South Africa. The Chair establishes Rhodes as a leading organization for environmental education research and academic training in Africa.

INDIGENOUS ENVIRONMENTAL NETWORK
This network, formed in the US, consists of indigenous people from around the world who work to build capacity for indigenous communities to protect their sacred lands, natural resources, health and economies.

NATIONAL ENVIRONMENTAL EDUCATION ACT
U.S. Congress passes the National Environmental Education Act (P. L. 101-619). The act authorizes the following: An Office of Environmental Education in the U.S.

Environmental Protection Agency; An environmental education and training program; environmental education grants; student fellowships; the President's Environmental Youth Awards; the Federal Task Force and National Advisory Council; the National Environmental Education and Training Foundation (NEETF)

ENVIRONMENTAL JUSTICE
The First **National People of Color Environmental Leadership Summit** is held in Washington, DC. Summit participants adopt the Principles of Environmental Justice. The following year the U.S. Environmental Protection Agency establishes the Office of Environmental Justice.

CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
The United Nations conducts the Conference on Environment and Development in Rio de Janeiro, Brazil. Chapter 36 of Agenda 21 focuses on "reorienting education towards sustainable development; increasing public awareness; and promoting training."

GUIDELINES FOR EXCELLENCE
The North American Association for Environmental Education initiates the ***National Project for Excellence in Environmental Education*** which provides guidelines for the development and assessment of EE materials as well as benchmarks for practitioner and student knowledge on environmental topics.

EXECUTIVE ORDER 12898– FEDERAL ACTIONS TO ADDRESS ENVIRONMENTAL JUSTICE IN MINORITY POPULATIONS AND LOW-INCOME POPULATIONS
This executive order focuses federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities. It also established an interagency work group on Environmental Justice.

PROJECT WET
The Council for Environmental Education and The Watercourse initiated Project WET (Water Education for Teachers). Project WET facilitates and promotes awareness, appreciation, knowledge, and stewardship of water resources in students K-12.

INTERNATIONAL CONFERENCE ON ENVIRONMENT AND SOCIETY
UNESCO conducts the *International Conference on Environment and Society: Education and Public Awareness for Sustainability*, in Thessaloniki, Greece (also known as Tbilisi+20). Nearly 1,200 experts from 84 countries attend the conference, which results in the Declaration of Thessaloniki.

AUSTRALIAN NATIONAL ACTION PLAN
The Australian government publishes a *National Action Plan* for integrating environmental education in both formal and non-formal education sectors.

JOHANNESBURG SUMMIT
The United Nations Commission on Sustainable Development holds the Johannesburg Summit in Johannesburg, South Africa. “The summit brought together tens of thousands of participants to focus the world’s attention and direct action toward …conserving our natural resources in a world that is growing in population, with ever-increasing demands for food, water, shelter, sanitation, energy, health services and economic security.”

DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT
The Centre for Environment Education holds the Education for a Sustainable Future Conference in Ahmedabad, India, the first international gathering of the UN Decade of Education for Sustainable Development (2005-2014). More than 800 learners, thinkers, and practitioners from over 40 countries attend the conference. Conference participants produce the Ahmedabad Declaration on education for sustainable development.

NCATE STANDARDS
National Council for the Accreditation of Teacher Education (NCATE) adopts EE standards in 2007, thus holding EE teacher training programs in NCATE-accredited colleges of education to high standards of performance.

NO CHILD LEFT INSIDE
The United States House of Representatives overwhelmingly passed the *No Child Left Inside Act* introduced by Representative John Sarbanes (Maryland) in a bi-partisan vote of 293-109 (the bill failed to pass the United States Senate and become law).
This legislative effort is supported by the No Child Left Inside Coalition, which was led by the Chesapeake Bay Foundation and included more than 2,000 environmental, educational, business, health care, faith-based, and other organizations from all 50 states, representing more than 50 million people.

ROSA PARKS AND GRACE LEE BOGGS OUTSTANDING SERVICE AWARD
NAAEE launches a new award in honor of activists Rosa Parks and Grace Lee Boggs. Each year, this award recognizes a person of color for leadership in educating and promoting action to support environmental education and environmental justice at the local, state, or global level. The first recipient of the award was Abby Ybarra, a member of the Yaqui Nation and educational consultant at Project Indigenous.

GREEN RIBBON SCHOOLS
The U.S. Department of Education launches the Green Ribbon Schools Award to recognize schools, districts, and institutions of higher education.

DEVELOPING A FRAMEWORK FOR ASSESSING ENVIRONMENTAL LITERACY
NAAEE releases *Developing a Framework for Assessing Environmental Literacy*, a comprehensive, research-based description of environmental literacy.

TAIWAN EE ACT
The Taiwan Environmental Education Act - one of the most comprehensive in the world - comes into force. In addition to providing funding for EE and a system of professional certification, the act requires that government agencies, enterprises, organizations and schools to implement no less than four hours EE every year. This means that even the President must have four hours a year of environmental education.

NATURAL START ALLIANCE
The Natural Start Alliance is a network of people and organizations that believe that all young children need frequent opportunities to experience, learn from, and care for nature and the environment through high-quality education. The Alliance, a project of the North American Association for Environmental Education, serves as a backbone organization to focus and amplify the collective impact of the people and organizations that share this common vision.

EVERY CHILD SUCCEEDS ACT
The *Every Child Succeeds Act* becomes law, replacing *No Child Left Behind*. The much-anticipated bill includes language that, for the first time, supports opportunities to provide students with environmental education and hands-on, field-based learning experiences.

GLOBAL ENVIRONMENTAL EDUCATION PARTNERSHIP
At the NAAEE conference in Madison, Wisconsin, the Global Environmental Education Partnership (GEEP) celebrates its North American launch. The GEEP is a global partnership committed to advancing environmental literacy to create a more just and sustainable future through the power of education. GEEP's founding partners are the U.S. Environmental Protection Agency, the Taiwan Environmental Protection Administration, and NAAEE.

30 UNDER 30
Each year, NAAEE recognizes individuals from around the world who are making a difference through environmental education.

UNITED ARAB EMIRATES (UAE)
The United Arab Emirates (UAE) signed an agreement with the International Renewable Energy Agency (IRENA) to cooperate in the integration of renewable energy and sustainable development in the UAE’s education system.

UNESCO GREENING EDUCATION PARTNERSHIP
The Greening Education Partnership (GEP) is a global initiative that takes a whole-of-system approach to support countries to tackle climate crisis by harnessing the critical role of education. As a collaborative platform for governments and other stakeholders including inter-governmental organizations, civil society, youth, academia, and private sector, Greening Education Partnership aims to deliver strong, coordinated and

comprehensive action that will prepare every learner to acquire the knowledge, skills, values, and attitudes to tackle climate change and to promote sustainable development.

Handout D.2
Activity #3: History of Environmental Education Timeline
Answer Sheet

1908

AMERICAN NATURE STUDY SOCIETY (ANSS)

ANNS was organized to promote critical investigation of all phases of nature-study in schools, especially all studies of nature in elementary schools. ANSS was devoted to the appreciation and understanding of our natural world. ANSS' memorable seven-word slogan: **Excellence in Nature Study, Writing and Appreciation** gave it focus for a century. ANSS' publications, *Nature Study Review* and then, *Nature Magazine*, became a magnet for nature writers.

1935

SOIL CONSERVATION SERVICE

Hugh Bennett, director of the US Soil Erosion Service spoke to Congress about the need to end destructive farming and ranching practices. As if on cue, the chamber was blackened by a cloud of soil that had blown in from the Great Plains states, a distance of 2,000 miles. Bennett's point had been made more powerfully than any words could express. Less than 2 weeks after that episode Congress passed the bill creating the Soil Conservation Service. Conservation, and the education for its need, had finally become a cause célèbre in the USA.

1935

NATIONAL EDUCATION ASSOCIATION

The National Education Association assumes a leadership role for conservation education in the schools.

1935

WISCONSIN CONSERVATION EDUCATION STATUTE

Wisconsin becomes the first state to enact a state statute requiring preservice teachers to have "… adequate preparation in the conservation of natural resources."

1948

IUCN – FIRST DOCUMENTED USE OF TERM ENVIRONMENTAL EDUCATION

Thomas Pritchard, Deputy Director of the Nature Conservancy in Wales, uses the term "environmental education" at the Conference for the Establishment of the International Union for the Protection of Nature (IUCN) in Paris. This is perhaps the first public professional use of the term.

1953

CONSERVATION EDUCATION ASSOCIATION

The Conservation Education Association is formed to support the many educators working in the field of conservation education.

1954

ASSOCIATION OF INTERPRETIVE NATURALISTS

The Association of Interpretative Naturalists (now the National Association for Interpretation) is formed.

1960

RURAL STUDIES ASSOCIATION

Rural Studies Association, now known as the National Association for Environmental Education (NAEE), is founded in the United Kingdom.

1967

RANGER RICK

The National Wildlife Federation publishes the first edition of *Ranger Rick's Nature Magazine* which is still going over 50 years later.

1968

COUNCIL FOR ENVIRONMENTAL EDUCATION (UNITED KINGDOM)

The Council for Environmental Education (CEE) is the national strategic organization for environmental education in England. CEE's membership includes 73 national organizations and an ever-increasing, diverse network of organizations with interests in education, the environment and sustainable development.

1969

ENVIRONMENTAL EDUCATION (JOURNAL)

Professor Clay Schoenfeld begins the journal, *Environmental Education*, later renamed *The Journal of Environmental Education*.
Dr. William Stapp and his students at the University of Michigan formally develop and publish a definition of “environmental education” in the first edition of the journal.

1969

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The National Environmental Policy Act (P. L. 91-190) is passed. “The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.”

April 1970

EARTH DAY

Gaylord Nelson, at the time a US Senator from Wisconsin, had for some time envisioned an environmental teach-in (modeled on civil rights and antiwar sit-ins) that would raise public awareness on critical environmental issues. Denis Hays, a Harvard law student collaborated with Nelson in enlisting the aid of campus activists from across

the country for an environmental teach-in that became known as Earth Day. It involved an estimated 20 million people with participation by nearly 1,500 college campuses.

1970

WESTERN REGIONAL ENVIRONMENTAL EDUCATION COUNCIL (WREEC)

WREEC (now the Council for Environmental Education) is created as a "… unique effort to create a partnership and network between education and natural resource professionals in support of environmental education."

1970

ADDRESS TO CONGRESS BY A PRESIDENT OF THE U.S.

President Nixon stated:

It is also vital that our entire society develop a new understanding and a new awareness of man's relation to his environment—what might be called "environmental literacy." This will require the development and teaching of environmental concepts at every point in the education process.

1970

NATIONAL ENVIRONMENTAL EDUCATION ACT

The National Environmental Education Act authorizes the creation of an Office of Environmental Education in the U.S. Dept. of Health, Education and Welfare; establishment of a National Advisory Council for environmental education; and establishment of a domestic grants program

1971

NATIONAL ASSOCIATION FOR ENVIRONMENTAL EDUCATION

The National Association for Environmental Education (now the North American Association for Environmental Education or NAAEE) is founded. NAAEE is a professional association for environmental educators.

1972

UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT

United Nations Conference on the Human Environment results in a declaration containing 26 principles. Principle 19 of the Stockholm Declaration specifically calls for "education in environmental matters, for the younger generation as well as adults." Recommendation 96 calls for the provision of environmental education as a means to address environmental issues worldwide.

1975

INTERNATIONAL WORKSHOP ON ENVIRONMENTAL EDUCATION

Held in Belgrade, Yugoslavia and sponsored by the UNESCO, the workshop resulted in what became known as The Belgrade Charter. The Belgrade Charter built on the framework of Stockholm and described the goals, objectives, audiences, and guiding principles of EE and proposed what has become the most widely accepted definition of EE:

Environmental education is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and which has the knowledge, attitudes, motivations, commitments, and skills to work individually and collectively toward solutions of current problems and the prevention of new ones.

1976

PROJECT LEARNING TREE

Western Regional Environmental Education Council (now the Council for Environmental Education) and the American Forest Institute (now the American Forest Foundation) develop the environmental education program Project Learning Tree.

1977

INTERGOVERNMENT CONFERENCE ON ENVIRONMENTAL EDUCATION

The definitive codification of EE as an international enterprise ultimately came out of the world's first Intergovernmental Conference on Environmental Education held in Tbilisi, Georgia, USSR. The document now known as *The Tbilisi Declaration* was formulated during this conference and in many quarters remains the definitive statement on what EE is and ought to be.

1980

AUSTRALIAN ASSOCIATION FOR ENVIRONMENTAL EDUCATION

Australian Association for Environmental Education is founded.

1981

FOUNDATION FOR ENVIRONMENTAL EDUCATION

Members of the European delegations to Tbilisi found the Foundation for Environmental Education in Europe to implement the conference recommendations. This organization later expands beyond Europe and currently manages a number of international programs, including Eco-Schools, Green Key, Blue Flag, Learning About Forests, and Young Reporters.

1982

ENVIRONMENTAL EDUCATION ASSOCIATION OF SOUTHERN AFRICA

Environmental Education Association of Southern Africa is founded.

1983

PROJECT WILD

WREEC and the Western Association of Fish and Wildlife Agencies develop Project WILD. Project WILD sponsors conservation and environmental education programs with a focus on wildlife for grades K-12.

1984

CENTER FOR ENVIRONMENTAL EDUCATION

Centre for Environment Education (CEE) was established as a Centre of Excellence of the Ministry of Environment and Forests, Government of India. As a national institution, CEE's mandate is to promote environmental awareness nationwide.

1987

BRUNTLAND REPORT

The World Commission on Environment and Development publishes the *Brundtland Report*. Also known as *Our Common Future*, this report introduced the idea of sustainable development in which environmental protection and economic growth are viewed as interdependent concepts.

1987

UNITED CHURCH OF CHRIST COMMISSION FOR RACIAL JUSTICE

The United Church of Christ's Commission for Racial Justice issues the report Toxic Wastes and Race in the United States: A National Report on the Racial and Socioeconomic Characteristics of Communities with Hazardous Waste Sites.

1990

INDIGENOUS ENVIRONMENTAL NETWORK

This network, formed in the US, consists of indigenous people from around the world who work to build capacity for indigenous communities to protect their sacred lands, natural resources, health and economies.

1990

RHODES UNIVERSITY, SOUTH AFRICA

The Murray & Roberts Chair of Environmental Education is founded at Rhodes University in Cape Town, South Africa. The Chair establishes Rhodes as a leading organization for environmental education research and academic training in Africa.

1990

NATIONAL ENVIRONMENTAL EDUCATION ACT

U.S. Congress passes the National Environmental Education Act (P. L. 101-619). The act authorizes the following: An Office of Environmental Education in the U.S. Environmental Protection Agency; An environmental education and training program; environmental education grants; student fellowships; the President's Environmental

Youth Awards; the Federal Task Force and National Advisory Council; the National Environmental Education and Training Foundation (NEETF)

1991

ENVIRONMENTAL JUSTICE
The First National People of Color Environmental Leadership Summit is held in Washington, DC. Summit participants adopt the Principles of Environmental Justice. The following year the U.S. Environmental Protection Agency establishes the Office of Environmental Justice.

1992

CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
The United Nations conducts the Conference on Environment and Development in Rio de Janeiro, Brazil. Chapter 36 of Agenda 21 focuses on "reorienting education towards sustainable development; increasing public awareness; and promoting training."

1993

GUIDELINES FOR EXCELLENCE
The North American Association for Environmental Education initiates the ***National Project for Excellence in Environmental Education*** which provides guidelines for the development and assessment of EE materials as well as benchmarks for practitioner and student knowledge on environmental topics.

1994

EXECUTIVE ORDER 12898– FEDERAL ACTIONS TO ADDRESS ENVIRONMENTAL JUSTICE IN MINORITY POPULATIONS AND LOW-INCOME POPULATIONS
Issued by President Clinton, this executive order focuses federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities. It also established an interagency work group on Environmental Justice.

1995

PROJECT WET
The Council for Environmental Education and The Watercourse initiated Project WET (Water Education for Teachers). Project WET facilitates and promotes awareness, appreciation, knowledge, and stewardship of water resources in students K-12.

1997

INTERNATIONAL CONFERENCE ON ENVIRONMENT AND SOCIETY
UNESCO conducts the *International Conference on Environment and Society: Education and Public Awareness for Sustainability*, in Thessaloniki, Greece (also known as Tbilisi+20). Nearly 1,200 experts from 84 countries attend the conference, which results in the Declaration of Thessaloniki.

1999

AUSTRALIAN NATIONAL ACTION PLAN

The Australian government publishes a *National Action Plan* for integrating environmental education in both formal and non-formal education sectors.

2002

JOHANNESBURG SUMMIT

The United Nations Commission on Sustainable Development holds the Johannesburg Summit in Johannesburg, South Africa. “The summit brought together tens of thousands of participants to focus the world’s attention and direct action toward …conserving our natural resources in a world that is growing in population, with ever-increasing demands for food, water, shelter, sanitation, energy, health services and economic security.”

2005

DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT

The Centre for Environment Education holds the Education for a Sustainable Future Conference in Ahmedabad, India, the first international gathering of the UN Decade of Education for Sustainable Development (2005-2014). More than 800 learners, thinkers, and practitioners from over 40 countries attend the conference. Conference participants produce the Ahmedabad Declaration on education for sustainable development.

2007

NCATE STANDARDS

National Council for the Accreditation of Teacher Education (NCATE) adopts EE standards in 2007, thus holding EE teacher training programs in NCATE-accredited colleges of education to high standards of performance.

2008

NO CHILD LEFT INSIDE

The United States House of Representatives overwhelmingly passed the *No Child Left Inside Act* introduced by Representative John Sarbanes (Maryland) in a bi-partisan vote of 293-109 (the bill failed to pass the United States Senate and become law).
This legislative effort is supported by the No Child Left Inside Coalition, which was led by the Chesapeake Bay Foundation and included more than 2,000 environmental, educational, business, health care, faith-based, and other organizations from all 50 states, representing more than 50 million people.

2009

ROSA PARKS AND GRACE LEE BOGGS OUTSTANDING SERVICE AWARD

NAAEE launches a new award in honor of activists Rosa Parks and Grace Lee Boggs. Each year, this award recognizes a person of color for leadership in educating and promoting action to support environmental education and environmental justice at the

local, state, or global level. The first recipient of the award was Abby Ybarra, a member of the Yaqui Nation and educational consultant at Project Indigenous.

2011

GREEN RIBBON SCHOOLS

The U.S. Department of Education launches the Green Ribbon Schools Award to recognize schools, districts, and institutions of higher education.

2011

DEVELOPING A FRAMEWORK FOR ASSESSING ENVIRONMENTAL LITERACY

NAAEE releases *Developing a Framework for Assessing Environmental Literacy*, a comprehensive, research-based description of environmental literacy.

2011

TAIWAN EE ACT

The Taiwan Environmental Education Act - one of the most comprehensive in the world - comes into force. In addition to providing funding for EE and a system of professional certification, the act requires that government agencies, enterprises, organizations and schools to implement no less than four hours EE every year. This means that even the President must have four hours a year of environmental education.

2013

NATURAL START ALLIANCE

The Natural Start Alliance is a network of people and organizations that believe that all young children need frequent opportunities to experience, learn from, and care for nature and the environment through high-quality education. The Alliance, a project of the North American Association for Environmental Education, serves as a backbone organization to focus and amplify the collective impact of the people and organizations that share this common vision.

2015

EVERY CHILD SUCCEEDS ACT

The *Every Child Succeeds Act* becomes law, replacing *No Child Left Behind*. The much-anticipated bill includes language that, for the first time, supports opportunities to provide students with environmental education and hands-on, field-based learning experiences.

2016

GLOBAL ENVIRONMENTAL EDUCATION PARTNERSHIP

At the NAAEE conference in Madison, Wisconsin, the Global Environmental Education Partnership (GEEP) celebrates its North American launch. The GEEP is a global partnership committed to advancing environmental literacy to create a more just and sustainable future through the power of education. GEEP's founding partners are the

U.S. Environmental Protection Agency, the Taiwan Environmental Protection Administration, and NAAEE.

2016

30 UNDER 30

Each year, NAAEE recognizes individuals from around the world who are making a difference through environmental education.

2019

UNITED ARAB EMIRATES (UAE)

The United Arab Emirates (UAE) signed an agreement with the International Renewable Energy Agency (IRENA) to cooperate in the integration of renewable energy and sustainable development in the UAE's education system.

2022

UNESCO GREENING EDUCATION PARTNERSHIP

The Greening Education Partnership (GEP) is a global initiative that takes a whole-of-system approach to support countries to tackle climate crisis by harnessing the critical role of education. As a collaborative platform for governments and other stakeholders including inter-governmental organizations, civil society, youth, academia, and private sector, Greening Education Partnership aims to deliver strong, coordinated and comprehensive action that will prepare every learner to acquire the knowledge, skills, values, and attitudes to tackle climate change and to promote sustainable development.

Handout E
Activity #4: Comparing Environmental Education and Education for Sustainable Development

Environmental education did not evolve in isolation. It has built from and contributed to the evolution of a number of education fields. Understanding how EE is similar to and different from these fields can be instructive. In this activity, participants will compare two fields, environmental education and education for sustainable development.

Procedure:

1. Review Resource #3 Educational Movements Related to EE (p. 98), with a focus on the descriptions of environmental education and education for sustainable development.
2. Use the chart (below) to compare environmental education and education for sustainable development.
3. Be sure to identify the characteristics that apply to both environmental education and education for sustainable development.

Characteristics of Environmental Education	Characteristics of Both	Characteristics of Education for Sustainable Development

Handout F
Activity #5: Do's and Don'ts

Procedure

1. Read the following scenario.
2. Imagine you are giving some guidance to civics teachers who will be teaching about a controversial issue that they care deeply about, as individuals, such as gun rights, whether the death penalty should be abolished, or whether animal testing should be banned.
3. What would be your advice: What would be on your "do's" and "don'ts" list for high-quality instruction?
4. Write down your list of "do's" and "don'ts."
5. With others in your class, compile a group list of "do's" and "don'ts."
6. Revisit your group "do's" and "don'ts" list. With an environmental education lens:
    - What items would you add to your "do's" and "don'ts" list? Why?
    - What would you delete or change? Why?
7. Update your list.

Scenario

A public middle school civics teacher in a politically polarized community is preparing to teach a unit about political parties during an election year. The teacher wants to include a discussion of public policy stands on controversial issues such as abortion, immigration, and the death penalty. This teacher will need to discuss with students these current issues and how different candidates approach those issues.

If you were giving some guidance to civics teachers, what would be on your "do's" and "don'ts" list for high-quality instruction?

Handout G
Activity #7: Analyzing Instructional Approaches

Procedure:

1. Take a moment to think about one of your favorite instructional approaches or teaching methods. What makes it so special for you?
2. Brainstorm common instructional strategies used in environmental education. Write these on a piece of paper.
3. Read ***Key Characteristic #5: Planning Environmental Education*** (pp. 57-67) in the *Educator Guidelines*.
4. Compare your list of instructional strategies (Step #2) to the list of Approaches to Environmental Education Instruction (Resource #8, pp. 106-108). You may also want to take a look at the approaches used to enhance civic engagement (Resource #14, pp. 121-123).
5. Select one instructional strategy to explore further, either from your list or the list in the *Educator Guidelines*.
6. Using at least three different Internet or other research resources, research an instructional approach. Provide full citations for the three resources.
7. Complete the form below (A – E).
8. Once you have completed your analysis, create a poster that reflects your thinking.
9. Email your completed poster or a photo of your poster to your instructor before the next class meeting.

Instructional Approach: _____

A. **Brief Description of the Instructional Approach**

B. **Example Activity:** How can this instructional approach be used in environmental education?

C. **Knowledge of Learners:** How might you adapt this method for use with an adult audience? Preschoolers? Learners with developmental disabilities?

D. **Setting for Instruction:** Describe any specific concerns or considerations.

E. **Technology**: What technologies might be used to assist learning?

Handout H
Activity #8 Educator Observation Rubric

Which Guideline were you assigned? _____

Procedure:

1. Read your assigned Guideline (e.g., 6.2, 6.4, 6.6).
2. Review the rubric template.
3. Read the example and consider how the criteria, *Organizing physical space*, is elaborated across four levels of educator application, starting with the highest level of success (Highly Effective) and ending with the lowest level (Does Not Meet Expectation).
4. Individually or as a group, determine what criteria should be used to gauge the novice educators' ability to apply your assigned guideline. Write at least three criteria in the left-hand column.
5. Taking one criterion at a time, write a description for each of the four levels (e.g., Highly Effective, Effective, Improvement Necessary, and Does Not Meet Expectation). Each should describe a different level of success. You may want to begin by writing a description of what it means for an educator to be Highly Effective and then write a description of what it means if the teaching Does Not Meet Expectation. Then, complete the middle two levels, Effective and Improvement Necessary.
6. Review your work. Be prepared to discuss how you addressed the inclusion of ***all*** learners.

Educator Observation Rubric

Criteria	Highly Effective	Effective	Improvement Necessary	Does Not Meet Expectation
Example: *Organizing physical space*	*The classroom environment is safe, and learning is accessible to all participants, including those with special needs. The educator makes effective use of physical resources, including computer technology. The educator ensures that the physical arrangement is appropriate to the learning activities. Participants contribute to the use or adaptation of the physical environment to advance learning.*	*The classroom is safe and participants have equal access to learning activities; the educator ensures that the furniture arrangement is appropriate to the learning activities and uses physical resources, including computer technology, effectively.*	*The classroom is safe, and essential learning is accessible to most participants. The educator makes modest use of physical resources, including computer technology. The educator attempts to adjust the classroom furniture for a lesson or, if necessary, to adjust the lesson to the furniture, but with limited effectiveness.*	*The classroom environment is unsafe or learning is not accessible to many. There is poor alignment between the arrangement of furniture and resources, including computer technology, and the lesson activities.*

Handout I
Classroom Garden[3]

Grades K-4

Objectives

Learners will understand that some foods are sustainable and can be regrown from scraps, then used in a meal.

Materials Needed

lettuce leaves, pineapple top, celery bottom, potato peelings with eyes, several small planters, several bowls with water, mister

Procedure

1. Ask students where vegetables come from.
2. Ask students if they know how to grow a plant like lettuce or potatoes.
3. Discuss how each of these plants grow over time.
4. Explain to students that some plants can be grown from other pieces of the same type of plant that we typically throw away, such as the bottom of a celery stalk or the peeling on a potato.
5. Show students the plant pieces that will be planted and a whole plant if available. Ask students if they think new plants will grow from the clippings. Have students guess how long it will take to grow each new plant.
6. Allow students to plant each new plant. Also allow students to care for and monitor the plants daily.
7. As plants reach maturity, prepare and invite students to taste a healthy snack from what they grew.

[3] Adapted from Willis, A. (n.d.) Classroom Garden From Trash, Lesson Plans, Teacher.org, https://www.teacher.org/lesson-plan/classroom-garden-from-trash/

Handout J
Self-Assessment

Using Environmental *Educator Knowledge & Skills: Guidelines for Excellence* as a set of potential benchmarks, carefully reflect on your competencies as an environmental educator.

Key: L…Lacking B…Basic P…Proficient D….Distinguished

#1 Environmental Literacy	L	B	P	D
Awareness and appreciation				
Earth processes and systems				
Human systems				
Application of systems thinking				
Action strategies and skills				
Personal and civic responsibility				
COMMENTS:				

#2 Foundations of Environmental Education	L	B	P	D
Fundamental characteristics & goals of EE				
Environmental education practices				
Evolution of environmental education				
COMMENTS:				

#3 Professional Responsibilities of the Environmental Educator	L	B	P	D
Exemplary environmental education practice				
Environmental information, misinformation, and disinformation				
Facilitation of critical thinking and action skills				
Reflective and reflexive practices				
Ongoing learning and professional development				
COMMENTS:				

#4 Commitment to Community, Collaboration, and Fairness	L	B	P	D
Community-centered				
Collaboration and belonging				
Fairness				
COMMENTS:				

#5 Planning Environmental Education	L	B	P	D
Instructional planning				
Knowledge of learners				
Environmental education materials and resources				
Settings for instruction				
Curriculum and program planning				
Tools and technologies that assist learning				
COMMENTS:				

#6 Implementing Environmental Education	L	B	P	D
Instructional methods				
Collaborative and welcoming learning environment				
Inquiry-based				
Exploration of worldviews and perspectives				
Promotion of civic engagement and action				
Flexible and responsive instruction				
COMMENTS:				

#7 Assessment and Evaluation	L	B	P	D
Outcomes: Plan with the end in mind				
Learner assessment that is part of instruction				
Program evaluation				
Improving instruction, program design, and materials				
COMMENTS:				

VIRGINIA ASSOCIATION FOR ENVIRONMENTAL EDUCATION

Handout K
Professional Development Plan

A Professional Development Plan (PDP) is a list of actionable steps for achieving your career goals.

- Complete this PDP based on your Self-Assessment results.
- You may use this table or another organized method for creating your PDP. If you use another method, remember to include all of the elements listed below in this table.
- Set a minimum of three goals. You may add rows to this table to set additional goals.
- You will have the opportunity to revisit your PDP at the conclusion of the Certification Program.

Self-Assessment (include Competency # to Address)	Goals	Timeline	Strategies	Resources

Self-Assessment
Note the Competency that you plan to address and the score you gave yourself (Lacking, Basic, Proficient, Distinguished).
You can find the detailed list of Core Competencies upon which the Certification Program is based in Canvas - Resources.

Goals
In this section, you will answer, “What does gaining proficiency in this competency look like for you in your career?” Make sure these are SMART Goals - Specific, Measurable, Achievable, Relevant, and Timely.

Timeline
By when will you reach this goal? Be specific.

Strategies
Define how you will achieve your goals. How will you gain proficiency? You can list a variety of approaches including experiential learning (learning through doing), exposure (learning from others), education, and reflection.

Resources
What resources do you have or will you seek in order to do what you plan to do? Where can you seek professional growth? Are these resources accessible to you? Consider location, time, and money involved.

General approach gleaned from indeed.com