Guidelines for Excellence
**Environmental Education Programs**

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# Workshop Resources

# Workshop Resources

## Environmental Education Programs: Guidelines for Excellence

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*Environmental Education Programs: Guidelines for Excellence–Workshop Resources* is part of a continuing series of documents published by the North American Association for Environmental Education (NAAEE) as part of the National Project for Excellence in Environmental Education. The project is committed to synthesizing the best thinking about environmental education through an extensive process of review and discussion.

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*Education We Need for the World We Want*

# Workshop Resources

## Environmental Education Programs: Guidelines for Excellence

### Workshop Description
In this workshop, participants will be introduced to the environmental education program development cycle, including needs assessment (front-end evaluation), program design and delivery, and evaluation. If you follow the module as outlined, the workshop will take approximately 6.5 hours to complete, not counting breaks and lunch.

### Workshop Background
This workshop introduces participants to _Environmental Education Programs: Guidelines for Excellence._ These guidelines comprise a set of recommendations for developing and administering high quality, environmental education (EE) programs. These recommendations provide a tool that can be used to ensure a firm foundation for new programs or to facilitate improvements in existing ones. The overall goal of the guidelines is to provide a superior educational process leading to the environmental quality that people desire.

The term "environmental education program" is used in these guidelines to mean an integrated sequence of planned educational experiences and materials intended to reach a particular set of objectives. Programs, taken together, are the methods by which an organization's education goals are accomplished. Programs can be small or large and can range from short-term, one-time events to long-term, community capacity-building efforts.

### Workshop Objectives
- Participants identify the key characteristics of high-quality environmental education programs
- Participants discuss the relationship between program design and program evaluation

### Materials Needed
- Projector and PowerPoint presentation (optional)
- Chart paper, markers, tape
- Copies of _Environmental Education Programs: Guidelines for Excellence_ for each participant
- Journals for each participant (e.g., blue books, notebooks, sheets of paper stapled together)
- Materials for String Theory (3 x 5 cards, paper clips, markers, yarn or string, etc.)
- Scenario Cards: Characterizing Your Audience
- Copies of handouts:
    - Handout #1: Mini Self-Assessment—Environmental Education Program Development (Optional)
    - Handout #2: Environmental Education Programs Summary Sheet
    - Handout #3: Characterizing Your Audience Scenario cards (printed off and cut into strips)
    - Handout #4: Characterizing Your Audience
    - Handout #5: Evaluating Pen Evaluation Logic

- Handout #6: Fostering a Positive Learning Environment Observation Rubric
- Handout #7: Self-Assessment Environmental Education Program Development
- Handout #8: Workshop Evaluation Form

## Sample Workshop Agenda
Welcome, Introductions, and Logistics
Icebreaker
Project Background
Getting Started—Jumping into Program Design
    Mini Self-Assessment or String Theory
Getting into the Six Key Characteristics
    Characterizing Your Audience
    Writing SMARTIE Goals and Objectives
    Deconstructing an Environmental Field Day
    Evaluating Everyday Items Using Evaluation Logic
    Fostering a Positive Learning Environment
Pulling It All Together
Final Thoughts, Questions, and Workshop Evaluation

## Welcome, Introductions, and Logistics       10 minutes

## Icebreaker       15 minutes
Use a brainstorm carousel with prompts that focus on EE and program development, String Theory (below) or one of your favorite icebreakers. If possible, use the icebreaker as both an opportunity for participants to get to know one another and to begin the process of thinking about nonformal environmental education program development.

## Project Background       10 minutes
Provide a short overview of NAAEE, the National Project for Excellence in Environmental Education, and the purpose behind the *EE Program Guidelines.* What is NAAEE? What is the National Project for Excellence in EE? Why were the *Guidelines for Excellence* series developed? How were they developed? Why *EE Program Guidelines?*

## Getting Started—Jumping into Program Design       45 minutes
As an engagement strategy, choose between these two different activities: Mini Self-Assessment and String Theory. In the first activity, participants work individually and complete a Mini Self-Assessment of their own program development process. In the second activity, participants work in small groups and build a model of the program development processes that they typically follow.

## Activity: Mini Self-Assessment
Using the six key characteristics outlined in the *EE Program Guidelines* as criteria, participants complete a self-assessment of their own program development process (see Handout #1: Mini Self-Assessment—Environmental Education Program Development). If you can contact the participants in advance of the workshop, consider asking them to complete the Mini Self-Assessment before they arrive (to jump-start their thinking about program planning). Otherwise, the self-assessment can be used as an introductory, engagement activity during the workshop.

**Materials Needed**
- ✓ Copies of Worksheet #1: Mini Self-Assessment—Environmental Education Program Development

**Alternatively—**

**Activity: String Theory**
In this activity, participants think about how they have developed environmental education programs in the past.

**Materials Needed**
- ✓ 3 x 5 cards or slips of paper
- ✓ Yarn or string or ribbon
- ✓ Paper clips
- ✓ Colored markers
- ✓ Any other items that could be used to build a model
- ✓ Handout #2: Environmental Education Programs Summary Sheet

**Procedure**
1. Ask the participants to think about the process they used in the past to develop environmental education programs (i.e., what is their typical program development process?). Individually, they should outline (brainstorm) their steps in their journal or on 3 x 5 cards. Give them about five minutes to outline their steps.
2. After most individuals have completed their task, form new groups (two to four people per group).
3. With the others in their group, ask participants to compare their program planning steps.
4. After they have discussed their planning steps, ask each group to create a model of their combined nonformal program development process.
5. Remind them that program development is not necessarily a linear process. Point out the model building materials at their table (yarn, paper clips, 3 x 5 cards, markers, etc.). Encourage them to be creative.
6. When most groups have completed their models, distribute copies of Handout #2: Environmental Education Programs Summary Sheet (one-page overview of the six key characteristics). Give participants a few minutes to review the key characteristics and compare them to their model.

**Wrap-Up**
Ask the participants how their models compared to the six key characteristics? Which key characteristics were included in their models? Where any not included? Had they included steps that they didn't see represented on the summary sheet? Were there any surprises?

## Getting into the Six Key Characteristics

Hand out copies *of Environmental Education Programs: Guidelines for Excellence* to each participant. Quickly walk them through the book, showing them how the guidelines are organized (e.g., six key characteristics, guidelines, indicators, appendices). Tell the participants that you will be exploring each of the key characteristics in more depth throughout the rest of the workshop, and that you will begin with Key Characteristic #1.

## Key Characteristic #1                                                    80 minutes

**Key Characteristic #1: Gather Information and Assess Priorities and Resources** focuses on the design of programs to address identified environmental, educational, and community needs and to produce responsive, responsible benefits that address those identified needs.

Lead a short discussion of front-end evaluation (needs assessment). Have any of the participants conducted a front-end evaluation—formally (e.g., survey, focus groups, etc.) or informally (e.g., discussion with conference participants, casual observation of visitor behavior)? During the discussion, reinforce the importance of not reinventing the wheel. Ask each group to revisit their individual Mini Self-Assessments or group String Theory model. To what extent had they included some type of front-end evaluation?

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**Front-end evaluation** (sometimes referred to as a needs assessment or planning evaluation) is used to guide the development of a program. Front-end evaluation …

…often involves studying a problem, situation, or issue to find out if a program is needed or how it should be framed. Front-end evaluation also can be used to identify gaps between your audience's current level of knowledge, attitudes, skills, and behavior and the level that is desired. In addition, it can be used to guide the development of new programs by helping to determine the characteristic or needs of an audience, define program goals and objectives, and identify potential stakeholders. As its name suggests, a frontend evaluation usually takes place prior to or at the very early stages of developing a program. Front-end evaluations generally are conducted for or used by those who will be developing the program.

Ernst, J.A., M.C. Monroe, and B. Simmons. Evaluating Your Environmental Education Programs: A Workbook for Practitioners. Washington, DC: NAAEE. 2009

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## Activity: Characterizing Your Audience

Working in small groups, participants analyze an assigned audience, looking at what we might know about that audience, and what we need to learn about the audience. They will be asked to describe their assigned audience, think about how to differentiate audiences, and consider implications for program planning. (45 minutes)

## Materials
   ✓ Handout #3: Scenario cards for Characterizing Your Audience (printed off and cut into strips)
   ✓ Handout #4: Characterizing Your Audience

## Procedure:
   1. Divide participants into small groups (up to five groups of two to four participants per group).
   2. Assign each group a different scenario to analyze (there are five).

3. Give each group a copy of Handout #4: Characterizing Your Audience.
4. Ask participants to complete the worksheet as a group, describing their assigned audience in terms of possible characteristics such as background knowledge and interests, prior training, attitudes and biases, potential interest in attending a training, ability to attend training, and relevant cultural characteristics.
5. Tell participants that the overall issue being discussed is nonpoint source pollution.

## Scenario Cards: Characterizing Your Audience[1]

**1. Audience: Local Officials**
- Many communities statewide are struggling to update their combined sewer systems. Many are trying to deal with run-off and nonpoint source pollution.
- Local officials are elected; in some of the larger municipalities their jobs are full time; in some of the smaller ones they are volunteers serving part time as officials.

**2. Audience: Nonprofit Conservation Groups**
- Local and regional conservation groups such as the local Audubon Society, the Friends of the State Parks, the Nature Conservancy, and the Sierra Club are beginning to work with the public and local communities to reduce run-off and heighten awareness of nonpoint source pollution.
- Although the groups know the basics, there is some misinformation being given out. Actions being supported to date have been "stop littering" campaigns and storm-drain stenciling.

**3. Audience: K–8 Classroom Teachers**
- There has been a recent acknowledgment at the state level that students should learn about water (elementary level) and water quality (middle school level) as part of the curriculum.
- Teachers are now working to incorporate this information into their curriculum and lesson plans.

**4. Audience: Landscapers**
- Landscape businesses are booming. More and more residents are using landscape professionals to maintain their yards and gardens.
- Nonpoint source pollution problems associated with increased nitrogen and phosphorus continue to grow.

**5. Audience: Immigrant Community**
- Many members of this immigrant community fled a war in their region and came to the United States over the last 10–15 years.
- Subsistence fishing is common within the community.

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[1] Scenario cards are adapted from training materials developed by the National Oceanic and Atmospheric Association (NOAA) Coastal Services Center.

### Debriefing

1. Bring the group back together for a quick sharing of each group's scenario and the results of their analysis (two minutes per group). Or, alternatively, ask one to two groups to share their results in full, and then ask if any of the other groups have additional or different experiences that they would like to share.
2. Ask participants: If you were given the same audience, but a different topic, how would your analysis differ?
3. If you suggested that you needed more information about or from the audience, how might you go about collecting that information?

### Wrap-Up

Ask participants to refer to the bullet points for Key Characteristic 1.4. How do these bullets relate to their scenario? Would any of their considerations change?

### Reflection—Journaling

Using their journals to reflect on their own programs and the audiences that their programs serve, ask participants: How do you know what your program audiences need? Do you know if you are addressing their needs? How do you know this?

### A Final Word on Font-End Evaluation
**A Missed Opportunity: A Cautionary Tale**

*Depending on time, you may want to close out the discussion of audience needs by telling the following true story.*

**The Story**
A new nature center, located on the outskirts of a medium-sized city, was just about to open. Staff members thought that it would be a great idea to design an EE program targeting an immigrant community in the city. They worked hard to develop a program that was hands-on and engaging for families. They scheduled the program for the last Saturday of the month. They printed fliers announcing the program and distributed them to businesses and organizations throughout the immigrant community's primary neighborhood. Saturday came and Saturday went. No one came for their program.

**What Went Wrong?**
Ask the group what may have been missed as the nature center prepared their program?

**Some Answers**
The nature center forgot to talk to their target audience! It turns out that Saturdays are an important and very busy day for this community. Many members are actively involved in the local farmer's market—as growers and as customers. The fliers were not translated into the community's native language. Few had their own cars and there was no public transportation available to the nature center. Finally, community elders play an important role in sanctioning activities. The nature center staff had not reached out to the community elders for their input and approval.

**The Upshot**
The nature center staff realized that they needed to reach out to their target audience to determine what this specific community needed. After many conversations, community elders fully approved the program and its integration into the farmer's market, and the marketing fliers were translated into the group's native language. The result: a very vibrant and successful series of events.

**Key Characteristic #2**                                                    **50 minutes**
**Key Characteristic #2: Design Instruction** focuses on the development of content and strategies with well-articulated goals and objectives that lead to environmental literacy, meet the needs of audience members, and address community concerns and aspirations.

Ask participants what typically comes to mind when they think about designing instruction? Ask them whether anyone has developed SMART or SMARTIE Goals and Objectives before? Provide a quick overview of SMART/SMARTIE goals and objectives (see page 36).

**SMARTIE Goals & Objectives**:
**S**trategic, **S**pecific and **S**tretching - Describes an action, behavior, outcome, or achievement that is observable.
**M**easurable - Details quantifiable indicators of progress towards meeting expectations and outcomes
**A**udience - Names the audience and describes outcomes from the perspective of the audience
**R**elevant - Is meaningful, realistic, and ambitious; the audience can (given the appropriate tools, knowledge, skills, authority, resources) accomplish the task or make the specified impact.
**T**ime-bound - Delineates a specific time frame.
**I**nclusive – Invites traditionally excluded or marginalized people into activities and decision-making in ways that share power.
**E**quitable – Designed to address systemic inequity and injustice.

**Activity: Writing SMARTIE Goals and Objectives**
Working in small groups, participants will write SMARTIE objectives for an upcoming conference and consider how they might use SMARTIE goals and objectives in their own programs.

**Materials**
✓ Chart paper and markers

**Procedure:**
1. Divide participants into small groups (up to five groups of two to four participants per group).
2. Tell the participants that their group is planning a Spring Conference/Workshop for classroom teachers.
3. Ask them to review the description of a SMARTIE goal/objective (page 36).
4. As a group, they should write at least one SMARTIE Goal for the gathering.
5. Explain, that if they have time (and energy) they should write a SMARTIE Objective to support one of their SMARTIE Goals.

6. Ask groups to share their SMARTIE Goals. To what extent are they similar to one another? How are they different from more traditional SMART Goals they may have written in the past? Was it difficult to write a SMARTIE Goal? How so?

## Wrap-Up

Ask groups to share their SMARTIE Goals with one another. To what extent are they like one another? How are they different from more traditional SMART Goals they may have written in the past? Was it difficult to write a SMARTIE Goal? How so? Ask participants to refer to the bullet points for Guideline 2.1.

## Reflection—Journaling

Using their journals to reflect on their own programs: How do you use goals and objectives in your program development process? Do you typically go through a formal goal and objective writing process?

## Key Characteristic #3                                                  50 Minutes

**Key Characteristic #3: Design Program Structure and Delivery** recommends that programs should be designed on a foundation of thorough preparation, including budget planning, facilities management, and concern for health and safety.

Tell the participants that we are going to move on to Key Characteristic #3 with a focus on creating a supportive, safe, culturally relevant, culturally responsive, accessible, and welcoming learning environment.

## Activity: Deconstructing a Visitor's Day

In this activity, participants will think about what makes a particular setting desirable for an environmental education community gathering and are asked to brainstorm all the steps needed to ensure that a program will go off without a hitch. The checklists they create will be compared to the guidelines in Key Characteristics #3.

## Materials
✓ Chart paper and markers

## Procedure
1. Tell the participants that we are going to shift now to thinking about all the preparation that needs to go into implementing a program.
2. Divide the participants into small groups (three to five participants per group).
3. Read the following scenario:

   Imagine that you work for a small not-for-profit that is sponsoring a family-oriented nature day for the local community. Your group is renting this nature center/meeting place for the event. You have come to the nature center/meeting place to scope it out for your event.

   You know that you will be setting up at least three educational stations around the grounds near the nature center. Each station will offer a hands-on activity for participants (adults and children).

There's a lot of work to be done before the community members arrive. Your job is to:
- Assess the facilities and outside areas with your program needs in mind.
- Design a checklist of "to do" items (actions you may need to take, materials that need to be prepared, facilities that need to be prepared).
- Use Key Characteristic #3 as a guide.

4. After each group has completed the task, lead a discussion about their findings, asking each group to share one or two items on their checklist.

### Wrap-Up
1. Point out the Resources You Can Use boxes, especially those focusing on Best Practices for LGBTQ+ Inclusive Youth Programming (p. 56) and Features of Positive Youth Development (p. 64).
2. Point out guideline 3.3 Health and Safety.  Ask participants to describe typical health and safety measures they consider in their programming?
3. Ask participants to take a couple of minutes to compare their individual Mini Self-Assessment or group String Theory model to Key Characteristic #3.

### Reflection—Journaling
Using their journals to reflect on their own programs, ask participants: Think about the programs offered for any age group, how well do you address the guidelines outlined in Key Characteristic #3? What aspects do you address thoroughly? Which could use further development?

### Key Characteristic #4                                              70 minutes
**Key Characteristic #4 Develop an Evaluation Plan** focuses on program evaluation, including developing guiding questions for each phase of the program development cycle, designing data collection methods, and documenting relevant program inputs, outputs, outcomes, and impacts.

Tell the participants that we are going to move on to a new topic—evaluation. Who has conducted an evaluation? Ask them to describe their experiences briefly. Point out to the participants that we have been talking about evaluation all day.

Tell the participants that there are different types of evaluation that take place at different points in the program development cycle. Remind them that we talked about needs assessment earlier in the day. Briefly introduce the different forms of evaluation (see page 67).

### Activity: Evaluating Everyday Items Using Evaluation Logic
In this activity, participants take a normal, everyday experience, such as deciding which pen and pencil to buy or use and think about what it takes to make evaluative criteria, standards, and judgments explicit.

### Materials
- ✓ Four different types of pens or pencils (one set of four different pens or pencils for each group). That is, give each group one 0.3 ballpoint pen, one 0.7 ballpoint pen, one highlighter, and one felt-tip pen. Put a label on each pen type (e.g., A, B, C, D).

✓ Handout #5: Evaluating Pen Evaluation Logic

Note: This activity can be done with any kind of object such as pencils or food items (e.g., types of chocolate chip cookies, different types of popcorn)—but the key is that there must be discernable differences between each item (e.g., buttered popcorn, caramel popcorn, salted popcorn, kettle corn). For example, with pens you will want to provide a set of pens that have a variety of characteristics: ballpoint versus ink pen, type of grip or barrel size, fine point versus medium point, felt-tip pen vs. highlighter, etc.

## Procedure
1. Tell participants that they will be conducting an evaluation of pens. Explain that this is an exercise in understanding the underlying logic behind evaluation.
2. Ask participants to get into groups of three to five people.
3. Provide each group with four different types of pens (labeled A, B, C, and D).
4. Ask participants to keep notes on their process, the decisions they made, and any challenges they experienced.
5. Distribute Handout #5: Evaluating Pen Evaluation Logic.
6. Explain that they are to first discuss and complete the first two columns on the handout— the criteria for which pens should be judged and the standards that should be used to judge a pen.
7. Tell participants to then write with each pen and complete the third and fourth columns on the handout.

## Wrap-Up
1. How would you describe your experience in establishing criteria for evaluating the pens? Was it difficult? What were some of the things you discussed in your group?
2. How did you determine what standards to use when judging the pens against your criteria? Were you all in agreement on these standards? How did you reconcile your differences?
3. How comfortable were you with your final judgment about which pen was best and which you would recommend?
4. How could you use a similar method to evaluate an aspect of your own program?
5. Once the group has finished discussing evaluation, point out Appendix E (Logic Model). Explain that more and more grant funders are requiring logic models or similar types of information. Explain to the group that every program has multiple elements that can be considered for evaluation. In the long term, you might want to develop a logic model for your program. This will help you map out an evaluation strategy. Evaluation can be complex and expensive. In the end you will need to determine which aspects are most important to you and your organization to achieve program success.

## Reflection—Journaling
Have you ever evaluated a program before? If so, what did you learn? If not, why not? In the future, how can you use program evaluation to improve your programs? (10 minutes)

## Key Characteristic #5                                          50 minutes

**Key Characteristic #5 Deliver Program and Implement Evaluation** focuses on delivering educational experiences that meet stated goals and objectives and providing a supportive, safe, culturally relevant, accessible, responsive, and welcoming learning environment. Implementing the evaluation plan is also included.

### Activity: Fostering a Positive Learning Environment – Observation Rubric         30 minutes

### Materials
- ✓ Chart paper and markers
- ✓ Handout #6

### Procedure
1. Tell the participants that we are going to shift now to thinking about what actually happens when a program and its evaluation are implemented.
2. Ask the group if any of them used a self-assessment tool for their own teaching or an observation form or rubric to evaluate someone else's teaching? Ask for examples.
3. Then, transition to the next activity where they will be creating a rubric based on the guidelines in in Key Characteristic #5.
4. Form small groups, one for each guideline if possible. Each group will be assigned a different guideline.
5. Explain that the rubric is designed to be used as an observation tool to gauge novice educators' ability to apply the assigned guideline *during* instruction.
6. Hand out copies of the rubric to each group. Explain that their task is to fill in the rubric by identifying <u>at least three</u> criteria that shape highly successful teaching and program implementation.
7. Taking one criterion at a time, ask them to 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 <u>example criterion</u>, Organizing physical space, and how it is elaborated across the four levels.
8. Finally, ask participants to be prepared to discuss how they addressed the inclusion of <u>all</u> learners in their rubric.

### Wrap up
Once 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.

Point out the boxes, DID YOU KNOW? Addressing Learner Needs: Differentiated Instruction and Universal Design for Learning (UDL) on page 82 and RESOURCES YOU CAN USE! Positive Learning Environment Observation Checklist, on page 86.

### Reflection—Journaling
Take a moment or two to think about your own teaching. If someone observed one of your typical classes: How would you rate? What are your strengths? What are areas of needed improvement?

### Key Characteristic #6

**Key Characteristic #6 Analyze, Adapt, and Share** focuses on taking the time to document, analyze, learn, and reflect.

Ask participants about ways that they celebrate program successes? What do you do after a program is over to prepare for the future? How have you learned from your programs, including your evaluations? As a final activity, ask them to reflect on their program development process.

### Pulling It All Together                                                                                         10 minutes

As a culminating exercise, ask participants to reflect further on the six key characteristics and how they relate to their own program planning process.

### Materials
   ✓ Handout #7: Self-Assessment EE Program Development

Hand out copies of the Self-Assessment tool and give participants a few minutes to complete it. Discuss their reactions.

The Mini Self-Assessment or String Theory activity that you completed at the beginning of the workshop was an engagement activity for you, but also a formative assessment to help us as facilitators understand what you already knew and how we should tailor our instruction. This Self-Assessment is a tool to help you reflect on your program development process. It is more detailed and a great resource for program assessment.

Depending on time, you can ask participants to complete the Self-Assessment in class or send it home with them as homework. You could even offer a follow-up conference call, webinar, Google Hangout, or other virtual environment to discuss their Self-Assessment and the plan they developed as a result of their Self-Assessment. This would assist with developing a stronger learning community and sustained professional learning.

### Final Thoughts, Questions, and Workshop Evaluation                           20 minutes

### Materials
   ✓ Handout #8: Workshop Evaluation

Handout #1
# Mini Self-Assessment – Environmental Education Program Development

Using *Environmental Education Programs: Guidelines for Excellence* as a set of potential benchmarks, carefully reflect on your program development efforts. To what extent do you or does your organization incorporate each of the following when designing and implementing an environmental education program?

**Key: N = Never / S = Sometimes / M = Most of the time / A = Always**

| #1 Gather Information & Assess Priorities & Resources | N | S | M | A |
|---|---|---|---|---|
| Conduct a self-assessment, including how the program supports the organization's vision, mission, and strategic priorities; addresses environmental, educational, and community needs; creates culturally relevant and responsive learning environments; and satisfies marketplace demands. Use existing program evaluation results and, as appropriate, conduct further program assessments in cooperation with stakeholders and other community partners. <br> 1.1 Self-assessment <br> 1.2 Organizational priorities, capacity, and resources <br> 1.3 Environmental, educational, and community needs <br> 1.4 Audience needs | | | | |

**Personal notes or questions:**

| #2 Design Instruction | N | S | M | A |
|---|---|---|---|---|
| Design instructional content and strategies with well-articulated goals and objectives that lead to environmental literacy, meet the needs of audience members, and address community concerns and aspirations. Build the program on a foundation of quality instructional materials and well-prepared staff. Purposefully co-design instruction in collaboration with stakeholders and other community partners. <br> 2.1 Goals and objectives <br> 2.2 Instructional materials and techniques <br> 2.3 Instructional staff | | | | |

**Personal notes or questions:**

| #3 Design Program Structure & Delivery | N | S | M | A |
|---|---|---|---|---|
| Develop a program format and delivery system that supports instructional goals and objectives and meets audience needs. Build program planning on a foundation of thorough preparation, including budget planning, facilities management, and concern for health and safety. Create a supportive, safe, culturally relevant, culturally responsive, accessible, and welcoming learning environment. Coordinate instructional delivery in collaboration with stakeholders and other community partners. <br> 3.1 Format and delivery <br> 3.2 Facilities <br> 3.3 Health and safety <br> 3.4 Communication | | | | |

**Personal notes or questions:**

| #4 Develop an Evaluation Plan | N | S | M | A |
|---|---|---|---|---|
| Develop an evaluation plan, including guiding questions for each phase of the program development cycle. Design data collection methods, documenting relevant program inputs, outputs, outcomes, and impacts. Build in ways to monitor and use evaluation results throughout program implementation.<br><br>4.1 Evaluation plan<br>4.2 Evaluation strategies, techniques, and tools<br>4.3 Pilot test the program and revise | | | | |

**Personal notes or questions:**

| #5 Deliver Program & Implement Evaluation Plan | N | S | M | A |
|---|---|---|---|---|
| Deliver educational experiences that meet stated goals and objectives, including the development of environmental literacy. Provide a supportive, safe, culturally relevant, accessible, responsive, and welcoming learning environment. Implement the evaluation plan.<br>5.1 Instructional content<br>5.2 Learning climate<br>5.3 Flexible and responsive instruction<br>5.4 Inclusion and collaboration<br>5.5 Instructional methods<br>5.6 Implement evaluation | | | | |

**Personal notes or questions:**

| #6 Analyze, Adapt, and Share | N | S | M | A |
|---|---|---|---|---|
| Take time to document, analyze, learn, and reflect. Examine evaluation results and consider what they mean in terms of how the program can be improved and whether it should be continued. If the program is ongoing, adjust it as necessary, and plan for its long-term sustainability. Celebrate successes, including partnerships, and share the results so others can learn from program efforts.<br>6.1 Evaluation results<br>6.2 Plan for long-term sustainability<br>6.3 Share learnings | | | | |

**Personal notes or questions:**

Handout #2
*Environmental Education Programs: Guidelines for Excellence*
**Summary**

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**#1 Gather Information & Assess Priorities & Resources**

Conduct a self-assessment, including how the program supports the organization's vision, mission, and strategic priorities; addresses environmental, educational, and community needs; creates culturally relevant and responsive learning environments; and satisfies marketplace demands. Use existing program evaluation results and, as appropriate, conduct further program assessments in cooperation with stakeholders and other community partners.

1.1 Self-assessment
1.2 Organizational priorities, capacity, and resources
1.3 Environmental, educational, and community needs
1.4 Audience needs

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**#2 Design Instruction**

Design instructional content and strategies with well-articulated goals and objectives that lead to environmental literacy, meet the needs of audience members, and address community concerns and aspirations. Build the program on a foundation of quality instructional materials and well-prepared staff. Purposefully co-design instruction in collaboration with stakeholders and other community partners.

2.1 Goals and objectives
2.2 Instructional materials and techniques
2.3 Instructional staff

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**#3 Design Program Structure & Delivery**

Develop a program format and delivery system that supports instructional goals and objectives and meets audience needs. Build program planning on a foundation of thorough preparation, including budget planning, facilities management, and concern for health and safety. Create a supportive, safe, culturally relevant, culturally responsive, accessible, and welcoming learning environment. Coordinate instructional delivery in collaboration with stakeholders and other community partners.

3.1 Format and delivery
3.2 Facilities
3.3 Health and safety
3.4 Communication

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**#4 Develop an Evaluation Plan**

Develop an evaluation plan, including guiding questions for each phase of the program development cycle. Design data collection methods, documenting relevant program inputs, outputs, outcomes, and impacts. Build in ways to monitor and use evaluation results throughout program implementation.

4.1 Evaluation plan
4.2 Evaluation strategies, techniques, and tools
4.3 Pilot test the program and revise

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**#5 Deliver Program & Implement Evaluation Plan**

Deliver educational experiences that meet stated goals and objectives, including the development of environmental literacy. Provide a supportive, safe, culturally relevant, accessible, responsive, and welcoming learning environment. Implement the evaluation plan.

5.1 Instructional content
5.2 Learning climate
5.3 Flexible and responsive instruction
5.4 Inclusion and collaboration
5.5 Instructional methods
5.6 Implement evaluation

**#6 Analyze, Adapt, and Share**

Take time to document, analyze, learn, and reflect. Examine evaluation results and consider what they mean in terms of how the program can be improved and whether it should be continued. If the program is ongoing, adjust it as necessary, and plan for its long-term sustainability. Celebrate successes, including partnerships, and share the results so others can learn from program efforts.

6.1 Evaluation results
6.2 Plan for long-term sustainability
6.3 Share learnings

Handout #3
## Scenario Cards: Characterizing Your Audience[2]

**1. Audience: Local Officials**
- Many communities statewide are struggling to update their combined sewer systems. Many are trying to deal with run-off and nonpoint source pollution.
- Local officials are elected; in some of the larger municipalities their jobs are full-time; in some of the smaller ones they are volunteers serving part-time as officials.

**2. Audience: Nonprofit Conservation Groups**
- Local and regional conservation groups such as the local Audubon Society, the Friends of the State Parks, the Nature Conservancy, and the Sierra Club are beginning to work with the public and local communities to reduce run-off and heighten awareness of nonpoint source pollution.
- Although the groups know the basics, there is some misinformation being given out. Actions being supported to date have been "stop littering" campaigns and storm-drain stenciling.

**3. Audience: K–8 Classroom Teachers**
- There has been a recent acknowledgment at the state level that students should learn about water (elementary level) and water quality (middle school level) as part of the curriculum.
- Teachers are now working to incorporate this information into their curriculum and lesson plans.

**4. Audience: Landscapers**
- Landscape businesses are booming. More and more residents are using landscape professionals to maintain their yards and gardens.
- Nonpoint source pollution problems associated with increased nitrogen and phosphorus continue to grow.

**5. Audience: Immigrant Community**
- Many members of this immigrant community fled a war in their region and came to the United States over the last 10–15 years.
- Subsistence fishing is common within the community.

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[2] Adapted, with permission, from NOAA Coastal Services Center, Training Activity: Characterizing Your Audience.

Handout #4
**Characterizing Your Audience**

Audience:

**Given the information provided about your audience and some "best guesses":**

1. How would the issue affect your audience? Why would they be interested in the issue?

2. How knowledgeable would they be about the issue? Would they be familiar with terminology?

3. How would they gain information related to the issue? Would they typically have access to education or information programs?

4. What are the barriers to their participation in education programs?

5. Would you recommend targeting this audience for the needs assessment? Yes or No?
Explain your reasoning:

6. What information would you want to gather from this audience if you were to conduct a needs assessment?

7. What methods might you use to gather information from or about this audience?

Handout #5
**Evaluating Pen Evaluation Logic[3]**

| Establishing Criteria | Constructing Standards | Measuring Performance and Comparing with Standards | Synthesizing and Integrating Evidence into Judgment of Worth |
|---|---|---|---|
| *What are the dimensions or criteria on which a pen should be judged (e.g., type of ink, smearing, ink flow, aroma, how fast the ink dries)?* | *How well should the pen perform on each of the dimensions (What are your standards)? Develop a rating system.* | *Based on your criteria for a good pen, how well does each pen measure up against the standards you set?* | *Which pen is worth buying?* |
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| **Which pen would you recommend, and why?** |
|---|
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[3] Adapted and reprinted with permission. Preskill, H. and Russ-Eft, D. (2005), *Building Evaluation Capacity: 72 Activities for Teaching and Training*. Thousand Oaks, CA: Sage Publications.

**Part II:** Now, use the same procedure, but apply it to an environmental education program.

| Establishing Criteria | Constructing Standards | Measuring Performance and Comparing with Standards | Synthesizing and Integrating Evidence into Judgment of Worth |
|---|---|---|---|
| *What are the dimensions or criteria on which a program should be judged? (Think about some discrete aspect of a program—lesson plan, facilities, instructors . . . what criteria for the aspect under evaluation?)* | *How well should the program perform on each of the dimensions (What are your standards)? Develop a rating system.* | *Based on your criteria for a good program, how well does each aspect measure up against the standards you set?* | *What features of the program are outstanding? What features could use improvement?* |
| **Sample criteria for facilities:** Views to the outdoors Acoustics Comfort of seating Food Can control thermostat Few to no hazards ADA Compliant | **Rating: Views to the outdoors.** 1. No window 2. Clerestory window 3. Small window - views for few participants 4. Windows with views for most participants 5. Windows with views for all participants | **Rate the room that you are in using the criteria established** | **Describe your judgment** You can see lots of green; lots of natural light |
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Handout #6
## Fostering a Positive Learning Environmental Educator Observation Rubric

**Which Guideline were you assigned?**

**Procedure:**
1. Read your assigned Guideline (e.g., 5.1, 5.2, 5.3).

2. Review the rubric. This rubric, when completed by you, will provide information on what criteria shape highly successful teaching. The rubric is designed to be used as an observational tool.

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. Determine what criteria should be used to gauge the novice educators' ability to apply your assigned guideline during instruction. Write at least two 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 a Highly Effective and then write a description of what it means if the observed 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.

## Fostering a Positive Learning Environmental Educator Observation Rubric

| Criteria | Higher Effective | Effective | Improvement Necessary | Does Not Meet Expectations |
|---|---|---|---|---|
| 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. |
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Handout #7
# Self-Assessment Environmental Education Program Development

Using *Environmental Education Programs: Guidelines for Excellence* as a set of potential benchmarks, carefully reflect on your program development efforts. To what extent do you/does your organization incorporate each of the following steps when designing and implementing an environmental education program?

**Key:   N…Never   S…Sometimes   M…Most of the time   A…. Always**

| | N | S | M | A |
|---|---|---|---|---|
| **#1 Gather Information & Assess Priorities & Resources** | **N** | **S** | **M** | **A** |
| 1.1 Self-assessment | | | | |
| 1.2 Organizational priorities, capacity, and resources | | | | |
| 1.3 Environmental, educational, and community needs | | | | |
| 1.4 Audience needs | | | | |
| **#2 Design Instruction** | **N** | **S** | **M** | **A** |
| 2.1 Goals and objectives | | | | |
| 2.2 Instructional materials and techniques | | | | |
| 2.3 Instructional staff | | | | |
| **#3 Design Program Structure & Delivery** | **N** | **S** | *M* | **A** |
| 3.1 Format and delivery | | | | |
| 3.2 Facilities | | | | |
| 3.3 Health and safety | | | | |
| 3.4 Communication | | | | |
| **#4 Develop an Evaluation Plan** | **N** | **S** | **M** | **A** |
| 4.1 Evaluation plan | | | | |
| 4.2 Evaluation strategies, techniques, and tools | | | | |
| 4.3 Pilot test the program and revise | | | | |
| **#5 Deliver Program & Implement Evaluation Plan** | **N** | **S** | **M** | **A** |
| 5.1 Instructional content | | | | |
| 5.2 Learning climate | | | | |
| 5.3 Flexible and responsive instruction | | | | |
| 5.4 Inclusion and collaboration | | | | |
| 5.5 Instructional methods | | | | |
| 5.6 Implement evaluation | | | | |
| **#6 Analyze, Adapt, and Share** | **N** | **S** | **M** | **A** |
| 6.1 Evaluation results | | | | |
| 6.2 Plan for long-term sustainability | | | | |
| 6.3 Share learnings | | | | |

## Pulling It All Together
## Self-Assessment, Part II

Now that you have completed the first checklist, what do you know? Take a few minutes to tally the results of your self-assessment in the table provided below. This should provide you with an overview of the results of your self-assessment.

**Self Assessment Summary—**Starting with Key Characteristic #1 on the first checklist, add up the total number of check marks for each of the four columns: Never, Sometimes, Most of the time, and Always. Enter the total number in the appropriate column of this chart.

**Key: N = Never / S = Sometimes / M = Most of the time / A = Always**

| | N | S | M | A |
|---|---|---|---|---|
| **#1 Gather Information & Assess Priorities & Resources (four guidelines)** | | | | |
| | | | | |
| **#2 Design Instruction (three guidelines)** | | | | |
| | | | | |
| **#3 Design Program Structure & Delivery (four guidelines)** | | | | |
| | | | | |
| **#4 Develop an Evaluation Plan (three guidelines)** | | | | |
| | | | | |
| **#5 Deliver Program & Implement Evaluation Plan (six guidelines)** | | | | |
| | | | | |
| **#6 Analyze, Adapt, and Share (three guidelines)** | | | | |

**Self-Assessment, Part III**

| *Self-Assessment, Part III* | | |
| --- | --- | --- |
| Now that you have summarized your self-assessment, what can you say about the strengths and weaknesses of your program development process? Identify any changes you might make to the program design and implementation process. | | |
| **Areas of Strength** | **Areas that Need to be Enhanced or Strengthened** | **Specific Actions to Address Self-Assessment** |
| | | |

Handout #8
## Workshop Evaluation

*Thank you for your interest in the National Project for Excellence in Environmental Education! Your responses will be used to improve this, and other programs supported by NAAEE.*

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**What grade do you give this workshop?**          **A     B     C     D     F**

*Why did you give it that grade?*

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**How strongly do you disagree or agree with the following?** *Circle one for each.*

|  | Strongly Disagree |  | | Unsure | |  | Strongly Agree | |
|---|---|---|---|---|---|---|---|---|
| I will recommend this workshop to colleagues or other professionals. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| This workshop was much better than other workshops I have participated in. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |

**Within the next year, I intend to**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| . . . improve my EE efforts by using the *Guidelines* | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| . . . share what I learned with colleagues and other professionals. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |

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**Describe three ways you can use the *Guidelines* to improve your own or others' EE efforts:**

**How can this workshop be improved to better meet your EE, professional, or other needs?**

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**What is your current profession?** *Check all that apply.*

❑ Pre-K–12 teacher

❑ College or university Instructor

❑ Conservation or natural resource professional

❑ Preservice teacher

❑ Resource developer

❑ Other _____

❑ Nonformal educator

❑ Program director

**Who do or will you teach?** *Check all that apply.*

❑ Preschool

❑ 9–12

❑ Nonformal educators

❑ Conservation or natural resource professionals

❑ K–2

❑ Teachers

❑ College or university Instructors

❑ Families

❑ 3–5

❑ Preservice teachers

❑ Program directors

❑ Other _____

❑ 6–8

❑ Other college or university students

❑ Resource developers

❑ Not applicable

**Number of years you have been an environmental educator**: About _____ years

**Number of students or participants you typically teach or reach per year:** About _____ ❑ NA

**The students or participants you primarily work with come from:** *Check one.*

❑ Urban     ❑ Suburban     ❑ Rural     ❑ Tribal     ❑ Mix of areas

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**THANK YOU!**