TEXAS CERTIFIED ENVIRONMENTAL EDUCATOR

APPLICATION HANDBOOK

A Guide for Individuals Applying for

Texas Certified Environmental Educator

Effective

January 1, 2020 – December 31, 2021

TEXAS CERTIFIED ENVIRONMENTAL EDUCATOR

> **The purpose of the Texas Certified Environmental Educator (TCEE) Program is to recognize an individual that demonstrates the competencies that an exemplary environmental educator should have, based on recognized knowledge and skills.**

Texas Association for Environmental Education (TAEE)

TAEE serves all regions of Texas towards increasing the effectiveness of environmental education. TAEE is dedicated to supporting and promoting quality environmental education opportunities by facilitating communication, coordination and professional development among the varied EE programs in the state. TAEE is an affiliate of the North American Association of Environmental Education (NAAEE).

Vision: The Texas Association for Environmental Education envisions residents who possess the knowledge, skills, attitudes and commitment to be stewards of the unique resources of Texas.

Mission: The Texas Association for Environmental Education is a professional organization that supports and promotes a community of environmental educators in the state of Texas by providing:
- Content
- Connections
- Certification
- Communication

Texas Certified Environmental Educator (TCEE)

Certification is a process by which individuals are assessed against predetermined standards of competency and granted a credential if they meet the standards. As the national professional association for environmental educators, the NAAEE created a set of national standards for the EE profession, called the *Guidelines for Excellence*. There are several volumes, each reflecting a different aspect of how the profession is practiced. The set of Guidelines upon which professional certification is based is called the *Guidelines for the Preparation and Professional Development of Environmental Educators* (NAAEE 2004).

The goals of the Texas Certified Environmental Educator Program are to increase environmental literacy, promote best practices in environmental education teaching methods and foster community leadership. The program enhances the ability of educators and organizations to provide quality programs and resources, benefitting local communities while investing in the future of Texas's environment. This program establishes standards for professional excellence in environmental education for formal and non-formal educators. The Certifying Agent for the program is TAEE, the Program Administrator is Dogwood Canyon Audubon Center, and the Certification Advisory Board of TAEE is responsible for making any major changes or decision regarding the program.

TCEE Application Overview

> **The purpose of this overview is to assist individuals in developing their applications for certification.**

- Application fee is $150 payable to *Texas Association for Environmental Education or TAEE*. Checks, major credit cards, and money orders will be accepted.

- Applications will be due and reviewed once a year, creating a cohort model of applicants. Application portfolios will be due January 1 of each year and will be reviewed in March/April with applicants notified by June 1.

- Portfolios will be reviewed and given a rating one of the following ratings: Master: score 25 – 30 (Pass); Developing: score 16 - 24 (Pass); or, Novice: score 0 - 15 (Fail). Those portfolios receiving a total summative score greater than 15 will be approved.

- Upon approval, applicants will receive a certificate recognizing them as a Texas Certified Environmental Educator.

- If the application portfolio is not approved for certification (portfolio receives a rating of Novice), the applicant has one year to resubmit revised portfolio without paying an additional fee, limited to only one resubmission during the one year. The review panel will provide a list of areas found deficient. If deficient areas of the portfolio are not resubmitted within one year, applicant must resubmit the entire portfolio and pay a new $150 program fee.

- Certificates must be renewed every 5 years. A Recertification Application and renewal fee of $50 must be submitted. Applicants must complete an additional 150 hours of professional development in EE every five years to maintain certification.

- TAEE will provide a minimum of one application orientation workshop each year at the annual TAEE conference. Applicants are encouraged to attend this workshop. Date and location will be posted on the TAEE website.

- Submit Application Portfolio electronically to the Texas Association for Environmental Education at: mcdaniel1288@gmail.com

- The application will be reviewed by TAEE staff for completeness. If the application is determined to be incomplete, it will be returned to the applicant describing the items that are missing. The incomplete application may be resubmitted by the next application deadline without paying an additional application fee. If the next deadline is missed, process starts over and another application fee is required. Once the

application is determined to be complete, staff will send a copy to each member of the Peer Review Panel (PRP), which will review it and recommend whether an application should be accepted for certification. TAEE will notify the applicant about the decision about six months after receipt of the application.

- All materials submitted by the applicant are kept confidential and for review by the TAEE staff and the PRP.

- Pages in the electronic portfolio should be submitted as PDF files and must be in 12-point Times Roman font with 1-inch margins on all sides.

- **Program fee must accompany application portfolio. Incomplete portfolios will not be processed.**

Frequently Asked Questions about EE Certification

Why Certification?
Environmental educators come for a wide variety of backgrounds. Few environmental educators have training both in the content areas such as science, geography, or social studies and in the pedagogical areas such as teaching methods and learning styles, or assessment. Below are some of the reasons to implement an EE Certification Program in Texas:
- Professionalize the field of EE
- Provide guidelines and procedures for professional development
- Expand professional development opportunities in the field
- Enhance the professional background of environmental educators
- Enhance the credibility of the field
- Allow credentialed professionals to be sought after and hired by entities within Texas
- Provide opportunities for certified individuals to be recognized within professional ad occupational settings.

Who Can Apply?
Whether you are new to the field or have years of experience in EE, the certification program can help you grow as an environmental educator. Formal educators and non-formal educators as well as interested individuals are encouraged to apply.

What are the Costs?
The initial application fee is $150. Certificates must be renewed every 5 years, with a renewal fee of $50. To renew certification, applicants must complete an additional 150 hours of professional development in EE during the 5 years.

What is Required?
Each applicant submits a competency-based portfolio based on the Guidelines as outlined in the Application Handbook.

Is certification required to work in the field?
Some entities may encourage an employee either to have or to obtain the EE certification. Certification validates and recognizes an individual has professional competencies and experiences within the field of EE.

Will certification help me get a job or higher pay?
No one can promise that, but being recognized as a Texas Certified Environmental Educator indicates that you have met standards of excellence in environmental education.

What are the benefits?
Those who are certified will receive a certificate of program completion, professional recognition and networking opportunities with other environmental educators across the state.

Who certifies environmental educators?

TAEE, a NAAEE Affiliate, is the Certifying Agent.

How will my application be evaluated?
The NAAEE's *Guidelines for the Preparation and Professional Development of Environmental Educators,* a common set of core competencies, are used as the criteria by which applicants are assessed. A Peer Review Panel (PRP), composed of leaders in the field of environmental education, will review each portfolio using the rubric in the Application Handbook. Each portfolio is reviewed by at least three trained reviewers.

Is membership in an EE organization required for certification?
Yes, membership in TAEE is required for application to assist you in demonstrating competency and help you network to find the resources you need to complete the certification application portfolio.

How long does the entire process take?
The length of time varies depending on how long it takes for you to show competency in the areas specified by the program requirements.

Are there books or training activities that will help me prepare for certification?
For information on activities that may help you prepare for certification, check out NAAEE's website at www.naaee.org or the TAEE website at www.taee.org, and/or come to a TAEE annual conference.

What score do I need on the portfolio review to receive certification?
Applicants who receive Developing or Master ratings will likely be approved but the final decision will rest with the review panel. In cases where the rating is Novice, applicants will receive comments and recommendations from the panel regarding how to strengthen pertinent aspects of their application. Scoring includes: Master: 25 – 30 (Pass)**;** Developing: 16 - 24 (Pass)**; or** Novice: 0 - 15 (Fail)

TCEE Application Handbook

Table of Contents

TCEE Application Portfolio Handbook

SECTION A: Application Form

Contact Information (Insert Information into fields below)
First and Last Name
Date of submission
Permanent Mailing Address
City, State, Zip
Home/Cell Phone
Work Phone
Email Address
Current position/Title and Organization
For reporting purposes: Gender   Birth Year   Ethnicity & Race

- Initial your method of Payment: Make checks out to **TAEE** or **Texas Association for Environmental Education**

$150 Check_____ $150 Money Order _____ $150 Credit Card _____

- Checks and Money Orders can be mailed to John Bunker Sands Wetland Center - TCEE Application. 655 Martin Lane, Seagoville/Combine, TX 75159.
- If paying by credit card, contact info@taee.org for a payment link.
- Submit portfolio electronically to mcdaniel1288@gmail.com.

Office Use Only
You will be assigned an ID# for records _____

Statement of Honesty

I, Name certify that the information I have provided in this application portfolio is accurate.

Upload Electronic Signature Here

Code of Ethics

I, Name have read the above Texas Certified Environmental Educator's Code of Ethics and Standard Practices and pledge to comply with standard practices and ethical conduct.

Upload Electronic Signature Here

Resume

I, Name have included a professional resume that outlines my professional experiences as an environmental educator.

Upload Electronic Signature Here

SECTION B: Environmental Education Competencies

Directions: In the table below, there is a description of each type of response. There is a total of six competencies, with multiple parts in each. Utilize attachment six for further detail.

Reflection Activity
These are brief writing assignments that allow you to reflect on your own experiences and think about what you have learned. Responses generally should be limited to one paragraph (5-6 sentences) in length. Please be concise.

Short Activity
These assignments allow you to explore your learning through an activity. These activities may require a list of responses. Bullets are preferred. (one-page maximum limit)

In-depth Activity
Some activities require more involvement than the short activities so that you can gain a deeper understanding. These involve writing a short essay (2-page maximum limit)

Competency Theme 1: Environmental Literacy

Part I: Knowledge of Ecology and Environmental Science

1. *(In-depth Activity)* - In 2005, NEETF issued a report synthesizing the results of nearly a decade of survey data and other related research on environmental literacy. The report offers a wealth of information accompanied by recommendations. Read the Introduction and Chapter 1 from "Environmental Literacy in America: What Ten Years of NEETF/Roper Research and Related Studies Say About Environmental Literacy in the U.S." (NEETF, 2005).

   In addition, Texas issued the Texas Natural Resource/Environmental Literacy Plan. This report addresses the goal and objectives achieving environmental literacy for all who reside in the state. Read this document.

   - Reflect on your growing understanding of environmental literacy. Identify the major components of environmental literacy. Discuss influences that have contributed to the evolution of these concepts. Discuss three insights that you have learned about the challenge of achieving environmental literacy (EL) for all Americans.

2. *(Short Activity)* - Read the NEETF Environmental Knowledge Survey found as Attachment 5 at the end of the handbook. Complete the survey yourself. Make copies and administer it to five other people. Complete the data collection chart below. In addition to recording the results for each respondent, you will also record and graph demographic data including gender, age range, and level of education.

   Discuss the following questions:
   - How did your subjects' responses compare with one another?
   - How did your 'subjects" responses compare with those of the "average American" (see Chapter 1 of report)?
   - Do you think any demographic factors, such as the ones you recorded, play a role in an individual's level of environmental knowledge? Why or why not?
   - How well do you believe this survey measures environmental knowledge? Explain.

3. *(Reflective Activity)* - Respond to the following questions:
   - What are your greatest strengths as indicated by your Knowledge of Environmental Processes and Systems self-assessment (above)?
   - In what areas do you believe you need to increase your knowledge? Explain.

National Environmental Report Card

Grade	% of Total Sample Receiving Grade	% of Men Receiving Grade	% of Women Receiving Grade	Age Range	Education Range
A (11 or 12 correct)					
B (10 correct)					
C (9 correct)					
D (8 correct)					
F (7 or fewer)					

Part II: Issue Investigations

1. *(Short Activity)* - Identify and list five environmental issues in your community that learners may find important, relevant, and applicable to real life. Identify your community and its location within Texas.

2. *(Short Activity)* - Select one of the issues. Then describe the following aspects of that issue.

   - Describe the problem, proposed solution/s, and success of any actions towards solution
   - Describe why it might be perceived as important and relevant to students.
   - What economic or social consequences are related to the concern or issue and its resolution? If so, what are they?

3. *(Reflective Activity)* - What do you think should be done to manage or resolve the issue identified above? What specifically could you do individually or as a group member?

Part III: The Nature of Inquiry

1. *(Reflective Activity)* - Discuss how inquiry leads to critical thinking and problem-solving skills, and how inquiry can be used in the field of environmental education.

Competency Theme 2: Foundations of EE

1. *(Short Activity)* - Identify the goals and objectives of environmental education as laid out in the founding documents of the Belgrade Charter (UNESCO-UNEP, 1976) and Tbilisi Declaration (UNESCO, 1978).

2. *(Reflective Activity)* - Based on your prior knowledge, readings, and experiences, define EE in your own words.

3. *(Short Activity)* - Create a chart using the model below.   Include at least two entities that provide EE services and resources within your local community; two at your state level; and two from the national level. Indicate how each entity can benefit you with your environmental education efforts (funding, resources, speakers, field experiences, workshops, etc.).

EE Entity	Local/state/national	Benefit to You as an EE Provider

4. *(Short Activity)* - Describe a successful partnership you have developed or could develop with one or more of the entities you listed in the chart above. Include information on how the partnership benefited, or could benefit your EE efforts

5. *(In-depth Activity)* - Review one specific environmental education research study, describe the findings and discuss their effect on how environmental education might be perceived, defined, or practiced (include reference to article). How does this particular research offer new insights and challenges to EE?

Competency Theme 3: Professional Responsibilities

1. *(Short Activity)* - Create your own "Top Ten" list of environmental education benefits. If possible, share the list with other educators and explain any responses you received from others.

2. *(Short Activity)* – Identify one professional development opportunity you participated in last year. Explain:
    a. Why you chose to participate in that professional development?
    b. How did the professional development benefit you professionally?

3. *(Short Activity)* – List your active memberships in EE organizations (i.e. TAEE/ NAAEE/ NAI/ CAST/ISEA//TCIN/etc.) or networks. Identify any leadership and/or service roles you have held within the organizations.

4. *(Short Activity)* – Discuss the difference between education and advocacy. Give one example that you have used or could use in your practice that promotes balanced, objective instruction to investigating and discussing an environmental issue.

5. *(In-depth Activity)* –
   a. Identify three state standards in language arts, science, math, social studies or other subject areas and describe how and to what extent you currently address (or would address) these standards through EE, whether as a classroom teacher or a non-formal educator. If you are a non-formal educator, describe how these standards could be addressed with an audience in a setting such as a park, zoo, or nature center. For a list of state standards documents, see the Texas Education Agency (TEA) web site.

   b. Identify and describe three local community resources that you could use to address the three standards you identified above. Specifically describe how you would use each community resource to address a particular standard.

Competency Theme 4: Planning and Implementing EE

Part I: The purpose of the following assignment is to familiarize you with the *EE Materials: Guidelines for Excellence* document, which can also be found on the NAAEE Website (www.naaee.org). Another purpose of this assignment is to familiarize you with one EE activity guide in depth. For this assignment, please make sure that you review an entire EE activity guide, not just a specific EE activity.

1. *(Reflective Activity)* Choose an EE curriculum/activity guide available to you (either a 'hard copy' or an electronic resource).

   - Provide information about the guide, with the following headings: Title of guide, short overview, grade level/range, length, date published, website, cost, and subjects.

2. *(Short Activity)* - Respond specifically to one guideline from each of the six categories of the *EE Materials Guidelines* using the chart provided as a template. Please refer to specific activities from the resource to support your discussion of each guideline. See the example from Project WILD curriculum guide below.

Category	Guideline	Response	Sample Activity
1.3) Openness to inquiry.	Materials should encourage learners to explore different perspectives and form their own opinions.	Students are required to consider alternate views, such as those related to hunting and land use.	The Hunter

Part II: The purpose of the following assignment is to familiarize you with the *Excellence in Environmental Education: Guidelines for Learning (K-12),* which can also be found on the NAAEE Website (www.naaee.org).

1. *(Reflective Activity)* - Read the following EE instructional scenarios. Select one and explain which of the strands and guidelines from the "K-12 Guidelines for Learning" are addressed.

   - A garden club composed of senior citizens has requested a program about beautiful flowers. Some members are serious gardeners; others enjoy the time as a social outing. You have created a one-hour presentation that introduces participants to native plants as an alternative to tropical and exotic plants. There were twenty-five to thirty participants. Describe the presentation including 3 instructional methods you used to address the participants' interest and ability to learn.

   - A group of high school students is considering how a new resort would impact a local coastal community. The area is wetland, beach and low-lying grassland currently used for cattle grazing. Describe 3 strategies to facilitate their learning about the impact that a resort community would have on this ecologically diverse community?

   - You're an environmental educator preparing a program that addresses the following criteria. Describe at least 3 instructional methods you would use for the conditions listed.
   Time Requirement: 2 ½ hours program

   Learner Characteristics: 5th grade; concrete learners with kinesthetic, audio and visual learning styles

   Community Dynamics: Central Texas, inland, high technological industry-based, large state university, majority of population has a strong environmental ethic, technology readily available in school system. Population is predominately European American with Asian American, Mexican American, and African American.

Objective: The student will be able to determine quality of water from a local creek.

Available Resources: Trained volunteers, freshwater creek that contributes to drinking water for community, basic equipment (collecting nets, Ziploc bags, plastic cups, magnifiers, identification charts, paper, pencil, and pocket weather station for temperature, relative humidity, wind speed, and dew point.)

- You have invited a kindergarten class for a field experience at your nature center. The students are going to document similarities and differences of plant life in a section of the center. They will compare and contrast leaf types along with other field investigations. In order to ensure the success of this learning experience, you are meeting with the teacher to anticipate any real or perceived barriers to their participation in the program. List some of these barriers and 3 strategies on how you plan to respond to them.

2. *(Short Activity)* - Now that you have read "short scenarios" referring to instructional methods, create your own short story or scenario that describes:
   - at least three instructional methods in your teaching,
   - transition from one method to another, and
   - alignment with your organizations' mission and goals

Competency Theme 5: Fostering Learning

1. *(Reflective Activity)* - Reflect on the importance of critical and independent thinking. Comment on its importance in light of EE's goal of developing environmentally literate citizens.

2. *(Reflective Activity)* - Describe how you currently or will imbue your lessons with a sense of excitement, motivation, relevance, and importance.

3. *(In-depth Activity)* - Reflect on the value of diverse cultures, races, genders, social groups, ages, and perspectives as critical to fostering learning. Describe two examples of instructional resources utilized or could be utilized in your programs that reflect diverse backgrounds and perspectives.

Competency Theme 6: Assessment and Evaluation

1. *(Short Activity)* - Interview two colleagues to see what tools they use for assessing learners. Ask them why they chose these particular methods of assessment and if they feel these tools are effective. Find out how they use information gathered from assessments and other data collected to evaluate their teaching and inform their practice.

2. *(Short Activity)* - Respond to the following questions in a short paragraph each.

   - What role does assessment and evaluation currently play in your EE instruction?
   - What challenges do you face in the assessment and evaluation of your current EE programs or teaching?
   - What aspects of your EE instruction would be most important for you to evaluate?

3. *(Short Activity)* - Choose at least two of the following alternative assessment tools and research them further. Describe how you use them or could use them in your teaching of EE activities

   - Manipulative tasks: Developing hypotheses, planning and carrying out experiments, measuring, writing up results.
   - Oral examinations/Interviews: Face-to-face verbal exchanges that allow educators to ask questions and respond to students' answers.
   - Exhibitions: Demonstrations, projects, and presentations.
   - Portfolios: A purposeful collection of evidence of a student's achievements, competencies, or skills gathered over time.
   - Concept mapping: A visual tool depicting the relationships among a set of concepts.
   - Performance assessment: Requires students to complete a task, product, or response that demonstrates their knowledge of a skill, process, or concept.
   - Other

SECTION C: INSTRUCTIONAL PROGRAM OUTLINE

1. *Preparation/Planning* - Design an EE lesson using the lesson plan template on the next page. The template will help you identify what EE learner guidelines you are targeting and what learner outcomes you desire, as well as develop activities and experiences that use a variety of methods to address your goals and help your learners achieve the desired outcomes. Use the instruction program checklists to help you craft and deliver an effective lesson. Submit the lesson plan template with your application.

2. *Instruction*/*Presentation* - Teach the lesson to an appropriate audience

3. *Reflection* - Complete the reflection (after instruction). This requires a short-answer paragraph for each of the seven prompts.

Lesson Plan Template (Submit with Application)

Pre-Lesson

A. Identify the audience (grade level/age) and the situational context for this lesson plan, including safety concerns.

B. List keywords/vocabulary in your lesson.

C. List the TEKS that are addressed by your lesson.

D. Identify one of the six EE Guidelines themes that aligns with your lesson.

E. Identify one or two statements about what the students must know and be able to do as a result of this lesson.

F. Describe the amount of time and space needed for the lesson.

G. List materials, supplies, technology, and equipment needed to teach the lesson.

Lesson Plan

A. Describe a short activity to engage the students in the lesson.

B. Describe the procedure you will use in teaching the lesson. Identify instructional methods that you will use.

C. Describe an evaluation that assesses if your objectives were achieved.

D. List one activity that could be used as an extension for your high achievers.

E. Provide at least two community resources that you could use as part of your lesson plan (e.g., guest speakers, field trip sites, etc.).

F. Include a bibliography of sources used to create your lesson plan.

G. List any modifications that might be needed for students with special needs.

Instruction Program Checklists

Preparation/Planning Checklist *(review the following pieces to ensure you are prepared for the lesson):*

Audience needs

- Selected and used materials that together present a range of differing viewpoints and interpretations where there are differences of opinion or competing scientific explanations
- Selected EE materials and strategies that are developmentally appropriate for a designated grade level. Included modification needed to respond to individual differences among learners
- Tailored instructional approaches to respond to varying cultural perspectives. Used cultural perspectives as an educational resource

Instructional Goals

- Developed a lesson plan that employs the investigative process. Documented sources and methodology
- Correlated lesson plan to meet TEKS
- Demonstrated concern for learner safety in the design and plan of instruction
- Planned setting for EE instruction appropriate to subject matter and available resources

Instruction/Presentation Checklist *(as you teach, consider these tips):*

Setting the stage

- Make objectives and other expectations clear to students at the outset
- Incorporate a variety of age appropriate EE tools and resources for students to use and understand.

Instructor Behavior

- Demonstrate different ways to encourage motivation, flexibility, creativity, and openness, considering the assumptions and interpretations that influence the conclusions that learners and others draw about the environment and environmental issues
- Implement management techniques that foster productive group work.
- Blend a variety of instructional methods and activities to meet instructional objectives

Instructional Strategies

- Model inquiry process.
- Model appropriate methods for learners in an instructional setting. Described alternative methods for engaging diverse learners
- Demonstrate proficiency with practices in instructional settings by engaging students in taking responsibility for their own learning
- Relate concepts directly to student's experiences. Use illustrative material relevant to the learner and geographical area
- Demonstrate use of appropriate instructional techniques that encourage learners to ask questions and explore a variety of answers
- Foster clear and independent thinking
- Present lesson with a sense of excitement in content and created an enjoyable experience for the learner.

Assessment

- link assessment to lesson objectives
- Use a variety of strategies for assessing learner outcomes both during (formative) and concluding (summative assessment) a learning experience and documented how the results will be used to improve future instruction.

Reflection on Instruction (*write a short paragraph answer for each item & submit with application*):

1. Reflect upon which teaching strategies were most effective.

2. Reflect upon which teaching strategies were least effective. Explain what you would do differently.

3. Describe how you excited and engaged the audience.

4. Describe one moment when you were distracted by the learner and how you handled the situation.

5. How did you incorporate the learners' prior knowledge and experience to make the topic relevant?

6. How were learners' conclusions and decisions influenced by different assumptions and interpretations about the environment?

7. How would you change your lesson/program, instruction or delivery as a result of the assessment/evaluation?

Attachment 1

Summary of the Guidelines for the Preparation and Professional Development of Environmental Educators

1. Environmental Literacy: Educators must be competent in the skills and understandings outlined in *Excellence in Environmental Education-Guidelines for Learning (Pre K-12)*.
    1.1 Questioning, analysis, and interpretation skills
    1.2 Knowledge of environmental processes and systems
    1.3 Skills for understanding and addressing environmental issues
    1.4 Personal and civic responsibility

2. Foundations of environmental education: Educators must have a basic understanding of the goals, theory, practice, and history of the field of environmental education.
    2.1 Fundamental characteristics and goals of environmental education
    2.2 How environmental education is implemented
    2.3 The evolution of the field

3. Professional responsibilities of the environmental educator: Educators must understand and accept the responsibilities associated with practicing environmental education.
    3.1 Exemplary environmental education practice
    3.2 Emphasis on education, not advocacy
    3.3 Ongoing learning and professional development

4. Planning and implementing environmental education: Educators must combine the fundamentals of high-quality education with the unique features of environmental education to design and implement effective instruction.
    4.1 Knowledge of learners
    4.2 Knowledge of instructional methodologies
    4.3 Planning for instruction
    4.4 Knowledge of environmental education materials and resources
    4.5 Technologies that assist learning
    4.6 Settings for instruction
    4.7 Curriculum planning

5. Fostering learning: Educators must enable learners to engage in open inquiry and investigation, especially when considering environmental issues that are controversial and require students to seriously reflect on their own and others' perspectives.

    5.1 A climate for learning about and exploring the environment
    5.2 An inclusive and collaborative learning environment
    5.3 Flexible and responsive instruction

6. Assessment and evaluation: Environmental educators must possess the knowledge, abilities, and commitment to make assessment and evaluation integral to instruction and programs.

    6.1 Learners outcomes
    6.2 Assessment that is part of instruction
    6.3 Improving instruction
    6.4 Evaluating programs

Attachment 2

Code of Ethics and Standard Practices

The Texas Certified Environmental Educator shall comply with standard practices and ethical conduct toward students, certified colleagues, school officials, parents, program participants and members of the community and shall safeguard academic freedom. The Texas Certified Environmental Educator, in maintaining the dignity of the profession, shall respect and obey the law, demonstrate personal integrity, and exemplify honesty. The Texas Certified Environmental Educator, in exemplifying ethical relations with colleagues, shall extend just and equitable treatment to all members of the profession. The Texas Certified Environmental Educator, in accepting a position of public trust, shall measure success by the progress of each student toward realization of his or her potential as an effective citizen. The Texas Certified Environmental Educator, in fulfilling responsibilities in the community, shall cooperate with parents and others to improve the educational opportunities in the community.

I. Professional Practice - The TCEE will:
    a. Not reveal confidential information of staff, program participants, or other colleagues
    b. Endeavor to avoid situations where a conflict of interest may arise.
    c. Represent the facts and results of research accurately and adequately, not basing decisions on personal beliefs.
    d. Promote competence in the field of EE by supporting high standards of education, performance and employment practices.

II. Professional Conduct – The TCEE will:
    a. Conduct activities with honesty, fairness, and respect.
    b. Make no false, misleading or deceptive statements regarding personal qualifications.
    c. Be aware of how personal belief systems may affect professional activities
    d. Accept responsibility for behavior and decisions.
    e. Possess an adequate basis for professional judgment.
    f. Respect the fundamental rights, dignity and worth of program participants, program staff, colleagues, etc. and the environment.
    g. Not accept nor offer gratuities, gifts, or favors that impair professional judgment or to obtain special advantage.

III. Social Responsibility - The TCEE will:
    a. Strive to be sensitive to cultural and individual differences including those due to age, gender, ethnicity, national origin, religion, sexual orientation, disability, and socio-economic status.
    b. Not engage in sexual or other harassment or exploitation.

Environmental Knowledge Quiz:
2001 NEETF/Roper Starch Worldwide National Report Card

1. There are many different kinds of animals and plants, and they live in many different types of environments. What is the word used to describe this idea?
a. Multiplicity

b. Biodiversity

c. Socio-economics

d. Evolution

e. Don't know

2. Carbon monoxide is a major contributor to air pollution in the U.S. Which of the following is the biggest source of carbon monoxide?

a. Factories and businesses

b. People breathing

c. Motor vehicles

d. Trees

e. Don't know

3. How is most of the electricity in the U.S. generated?

a. By burning oil, coal, and wood

b. With nuclear power

c. Through solar energy

d. At hydroelectric power plants

e. Don't know

4. What is the most common cause of pollution of streams, rivers, and oceans?

a. Dumping of garbage by cities

b. Surface water running off yards, city streets, paved lots, and farm fields

c. Trash washed into the ocean from beaches

d. Waste dumped by factories

e. Don't know

5. Which of following is a renewable resource?

a. Oil

b. Iron ore

c. Trees

d. Coal

e. Don't know

6. Ozone forms a protective layer in the earth's upper atmosphere. What does ozone protect us from?

a. Acid rain

b. Global warming

c. Sudden changes in temperature

d. Harmful, cancer-causing sunlight

e. Don't know

7. Where does most of the garbage in the U.S. end up? Is it in...

a. Oceans

b. Incinerators

c. Recycling centers

d. Landfills

e. Don't know

8. What is the name of the primary federal agency that works to protect the environment?

a. Environmental Protection Agency (the EPA)

b. Department of Health, Environment, and Safety (the DHES)

c. National Environmental Agency (the NEA)

d. Federal Pollution Control Agency (the FPCA)

e. Don't know

9. Which of the following household wastes is considered hazardous waste?

a. Plastic packaging

b. Glass

c. Batteries

d. Spoiled food

e. Don't know

10. What is the most common reason that an animal becomes extinct? Is it because...

a. Pesticides are killing them

b. Their habitats are being destroyed by humans

c. There is too much hunting

d. There are climate changes that affect them

e. Don't know

11. Scientists have not determined the best solution for disposing of nuclear waste. In the U.S., what do we do with it now? Do we....

a. Use it as nuclear fuel

b. Sell it to other countries

c. Dump it in landfills

d. Store and monitor the waste

e. Don't know

12. What is the primary benefit of wetlands? Do they...

a. Promote flooding

b. Help clean the water before it enters lakes, streams, rivers, or oceans

c. Help keep the number of undesirable plants and animals low

d. Provide good sites for landfills

e. Don't know

Attachment 4

Texas Certified Environmental Educator - Recertification Application Form

In order to maintain certification, a Recertification Application Form and renewal fee of $50 must be submitted and applicants must complete an additional 150 hours of professional development in EE every five years.

Name: _____

Address: _____ City: _____ Zip: _____

Phone Number: _____

Email Address: _____

Initial each item below:

$50 fee attached _____

150 Hours of Professional Development documented and attached _____

To be completed by office:

Certificate Date: _____   Renewal Date: _____

Complete this recertification application form and professional development chart and submit with recertification fee.

- Initial your method of Payment: Make checks out to **TAEE** or **Texas Association for Environmental Education**

$50 Check ____ $50 Money Order _____ $50 Credit Card _____

- Checks and Money Orders can be mailed to John Bunker Sands Wetland Center – TCEE Recertification, 655 Martin Lane, Seagoville, TX 75159
- If paying by credit card, contact info@taee.org for a payment link.
- Submit portfolio electronically to mcdaniel1288@gmail.com

Professional Development Chart

Date	Location	EE Theme*	Description of Activity	What was learned	Hours

Select from the six (6) themes listed below (you may be more specific within each theme):
Environmental Literacy
Foundations of EE
Professional Responsibility
Planning and Implementing EE
Fostering Learning (based on Competency worksheet)
Assessment and Evaluation

Please list and describe your professional development activities in attached chart, using template provided. Be sure to include key information for each activity when possible, such as type and/or title of workshop, , coursework, key EE mentors you worked with, committees on which you served, etc.

Ideas for Professional Development

•*Serve as an EE mentor*
•*Serve on a committee at a local, state, and/or national level of an EE organization*
•*Attend professional conferences, seminars, workshops*
•*Read a professional book and conduct/attend book study*
•*Lead or present professional development workshops/courses*
•*Present at state/national EE conferences*
•*Serve as a certification process mentor*
•*Serve as a certification reviewer*
•*Complete a related college course*
•*Participate in online/distance-learning opportunities*

Portfolio Assessment Rubric

Applicant   _____   Final Score   _____

Reviewer   _____   Date of Review   _____

This certification is for environmental educators who can demonstrate fundamental knowledge and skills. Successful applicants must show general understanding of each of six overarching themes. Competencies provide additional detail about skills and understandings within each theme.

Reading the Rubric

The rubric describes specific themes and competencies (or desired knowledge and skills) for certification. The competencies will be used by the peer review panel to evaluate each application. Applicants who receive developing or master ratings will likely be approved but the final decision will rest with the review panel. In cases where the majority of ratings are novice, applicants will receive comments and recommendations from the panel regarding how to strengthen pertinent aspects of their application.

Theme **General description of a specific set of skills, knowledge or experience.**			
1.1 Guideline These guidelines further describe each theme through the skills and knowledge that must be mastered to gain competency in this area.			
Peer Review: This is the area for reviewer comments and evaluation			
Theme 1 *Strengths/Areas of Improvement*	*__Master (3 pts.)*	*__Developing (2 pts.)*	*__Novice (1 pt.)*

Section A: Application Checklist

Strengths/Areas of Improvement	__Master (3 pts.)	__Developing (2 pts.)	__Novice (1 pt.)
	All of the following documents are included and complete (Checklist): ____Application Form ____Signed Code of Ethics ____Resume ____Signed Statement of Honesty ____ Proof of Application Fee Payment	Some of the following documents are included and complete (Checklist): ____Application Form ____Signed Code of Ethics ____Resume ____Signed Statement of Honesty ____Proof of Application Fee Payment	Few of the following documents are included and complete (Checklist): ____Application Form ____Signed Code of Ethics ____Resume ____Signed Statement of Honesty ____Proof of Application Fee Payment

Section B: Competencies Worksheet

Theme 1 - Environmental Literacy
Environmental educators possess the knowledge and skills associated with environmental literacy. Environmental educators should not only possess the competency to help their learners achieve these objectives but also embrace the spirit of environmental literacy by modeling it in their own endeavors.

1.1 Questioning, Analysis and Interpretation Skills
Developing environmental literacy depends on a willingness and ability to ask questions about the surrounding world, speculate and hypothesize, seek and evaluate information, and develop answers to questions. Environmental educators understand and can communicate the processes of investigation; and design, conduct, and evaluate such investigations.

1.2   Knowledge of Environmental Processes and Systems
Environmental literacy hinges on understanding the processes and systems that comprise the environment, including human social systems and their influences. That understanding is based on knowledge synthesized from across the traditional disciplines (especially the natural and social sciences).

1.3 Processes of Addressing Environmental Issues
Environmental educators understand that environmental literacy includes the abilities to research, evaluate, and act on environmental issues. The skills and knowledge outlined in the first two guidelines are applied and refined in the context of these issues.

1.4 Personal and Civic Responsibility
Environmental educators understand how people exercise the roles, rights and responsibilities of participation in civic life at all levels - local, state, national, and global.

Theme 1 Strengths/Areas of Improvement	__Master (3 pts.)	__Developing (2 pts.)	__Novice (1 pt.)

Required Responses *Part I: 1, 2, 3* *Part II: 1, 2, 3* *Part III: 1*	Evidence shows ability to synthesize and analyze work with insight – connecting practice, theory, & research to the guidelines Evidence clearly and creatively addresses the aim of this theme Reflections are clearly related to the theme's competencies and demonstrate growth over time and reveals depth and breadth of experience as an educator in EE	Evidence connects practice, theory, & research to the guidelines. Evidence sufficiently addresses the aim of this theme. Reflections relate to the theme's competencies and demonstrate growth over time as an educator in EE	Evidence lacks connections between practice, theory, & research and the guidelines. Evidence marginally or insufficiently addresses the aim of this theme. Reflections lack relationship to the associated competencies and/or do not demonstrate growth over time as an educator in EE

Theme 2 - Foundations of Environmental Education

Environmental educators have a basic understanding of the goals, theory, practice, and history of the field of environmental education. This knowledge provides a solid foundation on which educators can build their own practice

2.1 Fundamental Characteristics and Goals of Environmental Education
Environmental educators understand environmental education as a distinct field and know its defining characteristics and goals.

2.2 Implementation of EE
Environmental educators understand that environmental educator takes place in a variety of settings and those sources of support, program requirements, and other factors vary from context to context.

2.3 The Evolution of the Field of Environmental Education
Environmental educators are familiar with how the field of environmental education has changed over time and continues to change.

Theme 2 *Strengths/Areas of Improvement*	__Master (3 pts.)	__Developing (2 pts.)	__Novice (1 pt.)
Required Responses *Parts 2: 1, 2, 3, 4, 5*	Evidence shows ability to synthesize and analyze work with insight – connecting practice, theory, & research to the guidelines Evidence clearly and creatively addresses the aim of this theme	Evidence connects practice, theory, & research to the guidelines. Evidence sufficiently addresses the aim of this theme. Reflections relate to the theme's competencies and demonstrate growth over time as an educator in EE	Evidence lacks connections between practice, theory, & research to the guidelines. Evidence marginally or insufficiently addresses the aim of this theme. Reflections lack relationship to the associated competencies and/or do not

	Reflections are clearly related to the theme's competencies and demonstrate growth over time and reveals depth and breadth of experience as an educator in EE		demonstrate growth over time as an educator in EE

Theme 3 – Professional Responsibilities of the Environmental Educator
Environmental educators understand and accept the responsibilities associated with practicing EE. Environmental Educators maintain consistent and high standards for instruction and professional conduct.

3.1 Exemplary environmental education practice
Environmental educators understand their responsibility to provide environmental education that is appropriate, inclusive, constructive, and aligned with the standards of the field.

3.2 Emphasis on Education, Not Advocacy
Environmental educators provide accurate, objective, balanced, and effective instruction that acknowledges different views and opinions about environmental conditions, issues or actions.

3.3 Ongoing Learning and Professional Development
Environmental educators are active learners in their professional lives.

Theme 3 *Strengths/Areas of Improvement*	*__Master (3 pts.)*	*__Developing (2 pts.)*	*__Novice (1 pt.)*
Required Responses *Part 3: 1, 2, 3, 4, 5*	Evidence shows ability to synthesize and analyze work with insight – connecting practice, theory, & research to the guidelines Evidence clearly and creatively addresses the aim of this theme Reflections are clearly related to the theme's competencies and demonstrate growth over time and reveals depth and breadth of experience as an educator in EE	Evidence connects practice, theory, & research to the guidelines. Evidence sufficiently addresses the aim of this theme. Reflections relate to the theme's competencies and demonstrate growth over time as an educator in EE	Evidence lacks connections between practice, theory, & research to the guidelines. Evidence marginally or insufficiently addresses the aim of this theme. Reflections lack relationship to the associated competencies and/or do not demonstrate growth over time as an educator in EE

Theme 4 – Planning and Implementing Environmental Education
Environmental educators combine high-quality education with the unique features of environmental education to design and implement effective instruction. Environmental educators enable learners to engage in inquiry and investigation, especially when considering

environmental issues that are controversial and require learners to seriously reflect on their own and others' perspectives. Proper preparation should enable environmental educators to provide the interdisciplinary, place-based, hands-on, investigative learning opportunities that are central to environmental education. Environmental educators foster an environment such that student interactions are conducive to learning.

4.1 Knowledge about Learners
Environmental educators tailor instructional approaches to meet the needs of different learners in an engaging and challenging way. Whenever possible, accommodations for learners with special needs will be made. (This range may include adults, especially for educators in informal settings

4.2 Knowledge of Instructional Methods
Environmental educators are familiar with and can employ a range of instructional methods.

4.3 Planning for Instruction
Environmental educators plan age-appropriate environmental education instruction and programs that meet specific instructional goals.

4.4 Knowledge of Environmental Education Materials and Resources
Environmental educators are aware of a range of materials and resources for their environmental education efforts and understand how to access, evaluate, and use these resources

4.5 Technologies that Assist Learning
Educators are familiar with a range of technologies available to assist student learning

4.6 Settings for Instruction
Educators understand the importance of a safe and conducive learning environment both indoors and outside.

4.7 Curriculum planning
Educators are familiar with ways of including environmental education in the curriculum.

Theme 4 *Review*	*__Master (3 pts.)*	*__Developing (2 pts.)*	*__Novice (1 pt.)*
Required Responses *Part 4: 1, 2, 3, 4*	Evidence shows ability to synthesize and analyze work with insight – connecting practice, theory, & research Evidence clearly and creatively addresses the aim of this theme Reflections are clearly related to the theme's competencies and demonstrate growth over time and reveals depth and breadth of experience as an educator in EE	Evidence connects practice, theory, & research. Evidence sufficiently addresses the aim of this theme. Reflections relate to the theme's competencies and demonstrate growth over time as an educator in EE	Evidence lacks connections between practice, theory, & research. Evidence marginally or insufficiently addresses the aim of this theme. Reflections lack relationship to the associated competencies and/or do not demonstrate growth over time as an educator in EE

Theme 5 – Fostering Learning

Educators must enable learners to engage in open inquiry and investigation, especially when considering environmental issues that are controversial and require students to seriously reflect on their own and others' perspectives.

5.1 Climate for Learning
Environmental educators create a climate in which learners are intellectually stimulated and motivated to learn about the environment.

5.2 Inclusive Climate
Environmental educators maximize learning by fostering openness and collaboration among learners.

5.3 Flexible instruction
Environmental educators augment proper planning with the flexibility that allows them to take advantage of new instructional opportunities.

Theme 5 *Strengths/Areas of Improvement*	*__Master (3 pts.)*	*__Developing (2 pts.)*	*__Novice (1 pt.)*	
Required Responses *Part 5: 1, 2, 3*	Evidence shows ability to synthesize and analyze work with insight – connecting practice, theory, & research Evidence clearly and creatively addresses the aim of this theme Reflections are clearly related to the theme's competencies and demonstrate growth over time and reveals depth and breadth of experience as an educator in EE	Evidence connects practice, theory, & research. Evidence sufficiently addresses the aim of this theme. Reflections relate to the theme's competencies and demonstrate growth over time as an educator in EE	Evidence lacks connections between practice, theory, & research. Evidence marginally or insufficiently addresses the aim of this theme. Reflections lack relationship to the associated competencies and/or do not demonstrate growth over time as an educator in EE	

Theme 6 - Assessment and Evaluation
Environmental educators possess the knowledge, abilities and commitment to make assessment and evaluation integral to instruction and programs. Proper preparation should give environmental educators tools for assessing learner progress and evaluating the effectiveness of their instruction.

6.1 Learner Outcomes
Environmental educators understand the importance of tying assessment to learning.

6.2 Assessment that is Part of Instruction
Environmental educators incorporate assessment into environmental education.

6.3 Improving Instruction			
Environmental educators use instructional experiences and assessments to improve future instruction.			
6.4 Evaluating Programming			
Environmental educators understand the importance of evaluation and are familiar with basic evaluation approaches.			
Theme 6 *Strengths/Areas of Improvement*	*__Master (3 pts.)*	*__Developing (2 pts.)*	*__Novice (1 pt.)*
Required Responses *Part 6: 1, 2, 3*	Evidence shows ability to synthesize and analyze work with insight – connecting practice, theory, & research Evidence clearly and creatively addresses the aim of this theme Reflections are clearly related to the theme's competencies and demonstrate growth over time and reveals depth and breadth of experience as an educator in EE	Evidence connects practice, theory, & research. Evidence sufficiently addresses the aim of this theme. Reflections relate to the theme's competencies and demonstrate growth over time as an educator in EE	Evidence lacks connections between practice, theory, & research. Evidence marginally or insufficiently addresses the aim of this theme. Reflections lack relationship to the associated competencies and/or do not demonstrate growth over time as an educator in EE
Section C: Instructional Program			
Part 1: Preparation and Planning			
Strengths/Areas of Improvement	*__Master (3 pts.)*	*__Developing (2 pts.)*	*__Novice (1 pt.)*
	Designed an EE lesson plan that included all of the required evidence of competency	Designed an EE lesson plan that included most of the required evidence of competency	Designed an EE lesson plan that included some of the required evidence of competency
Part 2: Instruction			
Strengths/Areas of Improvement	*__Master (3 pts.)*	*__Developing (2 pts.)*	*__Novice (1 pt.)*

	Facilitated the instruction of an EE lesson plan that included all of the required evidence of competency	Facilitated the instruction of an EE lesson plan that included most of the required evidence of competency	Facilitated the instruction of an EE lesson plan that included some of the required evidence of competency
Part 3: Reflection			
Strengths/Areas of Improvement	*__Master (3 pts.)*	*__Developing (2 pts.)*	*__Novice (1 pt.)*
	Demonstrated reflection on the teaching effectiveness of an EE lesson plan that included **all** of the required evidence of competency. Completed the seven paragraph responses for lesson plan reflection (after instruction).	Demonstrated reflection on the teaching effectiveness of an EE lesson plan that included **most** of the required evidence of competency	Demonstrated reflection on the teaching effectiveness of an EE lesson plan that included **some** of the required evidence of competency

Application Rubric Scores

Section A: Application Portfolio

Directions: Check the level of competency based on the checklist

	Master (3 pts.)	Developing (2 pts.)	Novice (1Pt.)	Score
	_____Master	_____Developing	_____Novice	

TOTAL Score for Section A: _____

COMMENTS/SUGGESTIONS FOR IMPROVEMENT:

Section B: EE Competencies

Competencies Themes 1-6
Directions: Check the level of competency for the theme based on assessment of the guidelines in each theme

Theme	Master (3 pts.)	Developing (2 pts.)	Novice (1Pt.)	Score
1	_____Master	_____Developing	_____Novice	
2	_____Master	_____Developing	_____Novice	
3	_____Master	_____Developing	_____Novice	
4	_____Master	_____Developing	_____Novice	
5	_____Master	_____Developing	_____Novice	
6	_____Master	_____Developing	_____Novice	

TOTAL Score for Section B: _____

COMMENTS/SUGGESTIONS FOR IMPROVEMENT:

Section C: Instructional Program _____

Directions: Check the level of competency for each part based on the checklist of components for each part

	Master (3 pts.)	Developing (2 pts.)	Novice (1Pt.)	Score
Part 1	_____Master	_____Developing	_____Novice	
Part 2	_____Master	_____Developing	_____Novice	
Part 3	_____Master	_____Developing	_____Novice	

TOTAL Score for Section C: _____

COMMENTS/SUGGESTIONS FOR IMPROVEMENT

TOTAL PORTFOLIO SCORE

A: Application Portfolio _____(out of 3)

B: Competencies Worksheet_____(out of 18)

C: Instructional Program _____(out of 9)

_____ TOTAL
                 (of 30)

SUMMATIVE SCORE DISTRIBUTION

Master: 25 – 30 (Pass)

Developing: 16 - 24 (Pass)

Novice: 0 - 15 (Fail)

Attachment 6: The Core Competencies for NAAEE Certification Programs

Theme 1: Environmental Literacy

<u>1.1</u> Questioning and Analysis Skills
A certified environmental educator will compare and contrast different investigative approaches/methods/modes and apply at least one of them to an environmental topic.

A certified environmental educator will describe scenarios in which environmental knowledge is incomplete, and will explain how environmental knowledge continues to change as discoveries are made.

A certified environmental educator will critically analyze sources of information for accuracy and reliability.

<u>1.2</u> Knowledge of Environmental Processes and Systems
A certified environmental educator will demonstrate an understanding of the processes and systems that comprise each of these concepts:

- Biological change;
- Cycles, physical processes that shape the earth, and energy flow;
- Biodiversity;
- Cultural, political and economic systems;
- Human interactions with the environment; and
- Ecological consequences.

A certified environmental educator will demonstrate knowledge of Texas's bioregion's natural and cultural histories.

<u>1.3</u> Skills for Understanding and Addressing Environmental Issues
A certified environmental educator will differentiate between an environmental event, problem and issue.

A certified environmental educator will identify an environmental issue and, for that issue, design a plan to:

- Investigate, analyze, and evaluate its scope, causes, and consequences; and
- Investigate and evaluate alternative solutions.

1.4 Personal and Civic Responsibility
A certified environmental educator will:

- Describe an environmental issue and various societal values that play a role in it;
- Articulate citizen rights and responsibilities, as well as his/her position, with respect to that issue;
- Propose and justify a course of action;
- Design a plan to carry out that action; and
- Critique that plan, to include probable outcomes

Theme 2. Foundations of Environmental Education

2.1 Fundamental Characteristics & Goals of Environmental Education
A certified environmental educator will be able to describe the goals, objectives and characteristics of environmental education that contribute to making it a distinct field.

2.2 How Environmental Education is Implemented
A certified environmental educator will be able to identify major national EE Providers and two state EE providers and the resources they offer.

2.3 The Evolution of the Field
A certified environmental educator will be able to explain the evolution of the field of environmental education, by citing and describing the significance or impact of historical documents, movements (historical and emerging), policies, and individuals in making the field what it is today.

A certified environmental educator will be able to discuss how at least one current policy impacts his or her day-to-day work.

Theme 3: Professional Responsibilities of the Environmental Educator

3.1 Exemplary Environmental Education Practice
A certified environmental educator will model responsible, respectful and reasoned behavior during presentations and interactions (e.g. committee meetings, activities, communications, etc.) with a local community.

A certified environmental educator will correlate inquiry-based lessons to national and/or state academic standards.

3.2 Emphasis on Education, not Advocacy

A certified environmental educator will illustrate with examples what the differences are between advocacy and education.

A certified environmental educator will identify instructional strategies and curriculum materials and explain how they can be used to encourage learners to gain and explore different perspectives, form their own opinions and support their beliefs.

A certified environmental educator will implement one of the instructional strategies he or she identified and explained.

3.3 Ongoing Learning and Professional Development

A certified environmental educator will identify his or her own past and present professional development activities, conduct a self-assessment of the degree to which he or she currently meets the core competencies, and create a plan for his or her future professional development, identifying

- Specific gap(s) in his or her knowledge and skills; and
- Different methods to achieve improvement (e.g. membership in professional associations, professional journals, mentoring, conferences, field experiences, etc.).

Theme 4: Planning and Implementing EE

4.1 Knowledge of Learners

A certified environmental educator will demonstrate and/or document appropriate instructional approaches that meet the needs of diverse learners, taking into account differences in:

- Cultural and socioeconomic backgrounds;
- Age and grade level;
- Levels of knowledge and experience;
- Special needs; and
- Developmental abilities.

4.2 Knowledge of Instructional Methodologies

A certified environmental educator will demonstrate distinct instructional methods that are particularly suited to environmental education (See the list on page 14 of *The Guidelines for Initial Preparation of Environmental Educators.*)

4.3 Planning for Instruction

A certified environmental educator will articulate the scope of what constitutes environmental knowledge and skills as well as the sequence in which they should be learned, by aligning one program's content to the *Guidelines for Learning* (K-12). (Note: For adult programs refer to "Theme 1: Environmental Literacy" of the *Guidelines for Initial Preparation of Environmental Educators*, as a framework.)

4.4 Knowledge of Environmental Education Materials and Resources
A certified environmental educator will be able to list and critically evaluate types of EE materials obtainable from community and corporate organizations, agencies, professional development training programs, and/or the Internet. (Note: Evaluations should be based on *Environmental Education Materials: Guidelines for Excellence.)*

A certified environmental educator will be able to critically evaluate one state or local EE program. (Note: Assessments should be based on *Nonformal Environmental Education Programs: Guidelines for Excellence*.)

4.5 Technologies that Assist Learning
A certified environmental educator will describe types of instructional tools or technologies and give examples of their safe, effective, appropriate use in instructional settings.

4.6 Settings for Instruction
A certified environmental educator will analyze one of his or her teaching environments citing ways to address potential safety issues and three ways in which the teaching environment is appropriate for the subject matter he or she is teaching.

A certified environmental educator will describe field experiences in which he or she has been able to link content to the learners' immediate environment.

4.7 Curriculum Planning
A certified environmental educator will give examples of how he or she has successfully integrated environmental education into curricula, programs or an organization's mission.

A certified environmental educator from the informal community will be able to demonstrate strategies for supporting and enhancing teachers' efforts in environmental education at the PreK-12 level.

Theme 5. Fostering Learning

5.1 A climate for Learning about and Exploring the Environment
A certified environmental educator will demonstrate that he or she successfully stimulated learners' interest in the environment.

5.2 An Inclusive and Collaborative Learning Environment
A certified environmental educator will demonstrate that he or she successfully engaged children/adults in their own learning and provided first-hand, inquiry-based, developmentally appropriate experiences, indicating ways in which they collaborated.

A certified environmental educator will demonstrate that his or her lesson/presentation was relevant and interdisciplinary.

A certified environmental educator will cite instances where he or she used the diverse backgrounds and perspectives of learners not just as context but also as an instructional resource.

5.3 Flexible and Responsive Instruction

A certified environmental educator will demonstrate that he or she is able to take advantage of "teachable moments" by being flexible and open to student questions and ideas.

Theme 6: Assessment and Evaluation

6.1 Learner Outcomes

A certified environmental educator will demonstrate the use of assessment tools designed to measure cognitive, affective and/or psychomotor outcomes that align with instructional objectives (NOTE: Instructional objectives should be drawn from state standards and/or EE goals and objectives.)

6.2 Assessment that is Part of Instruction

A certified environmental educator will demonstrate the implementation of one strategy to engage learners in setting their own expectations for learning and evaluating their performances.

A certified environmental educator will demonstrate how one assessment strategy was used to shape instructional planning and/or delivery.

6.3 Improving Instruction

A certified environmental educator will demonstrate one example of how assessment and/or evaluation data were used to improve instruction.

6.4 Evaluating Programs

A certified environmental educator will describe:

- One way he or she used evaluation to design or develop an environmental education program;
- One way he or she used evaluation during program implementation to improve an environmental education program; and
- One way he or she used evaluation to determine the impact of an environmental education program.