

To assist in the development of programs for pre-service and in-service preparation, each theme is accompanied by references to several relevant articles and books. These references enable developers and instructors of professional development programs and environmental education courses to delve more deeply into the content of each theme.

The Guidelines at a Glance

This list includes the six themes and general guidelines required for competency in environmental education. Each guideline is further articulated in the sections following this summary.

#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 Learner outcomes
- 6.2 Assessment that is part of instruction
- 6.3 Improving instruction
- 6.4 Evaluating programs

Selected References:

- Brundtland, G. H. *Our Common Future: The World Commission on Environment and Development*. New York: Oxford University Press, 1989.
- UNCED. *Agenda 21: Programme of Action for Sustainable Development: Rio Declaration on Environment and Development*. New York: United Nations, 1992.

UNESCO/UNEP. “The Belgrade Charter,” *Connect* 1, no. 1 (1976): 1–2.

UNESCO. *Final Report: Intergovernmental Conference on Environmental Education*. Organized by UNESCO in cooperation with UNEP, Tbilisi, USSR, 14–26 October 1977. Paris: UNESCO, 1977.

UNESCO. *Educating for a Sustainable Future: A Transdisciplinary Vision for Concerted Action. Report from the International Conference on Environment and Society: Education and Public Awareness for Sustainability*. Organized by UNESCO and the Government of Greece, Thessaloniki, 8–12 December 1997. Paris: UNESCO, 1997.

UNITED NATIONS. *Report of the World Summit on Sustainable Development*. Johannesburg, South Africa, 26 August–4 September 2002. New York: United Nations, 2002.

Theme #1— Environmental Literacy

Environmental educators must possess the understandings, skills, and attitudes associated with environmental literacy. These competencies have been defined in detail in *Excellence in Environmental Education—Guidelines for Learning (Pre K–12)*, published by the North American Association for Environmental Education, which should be considered a companion to this document. Educators must gain a working knowledge of the content and skills they will be teaching, with a mastery, at minimum, appropriate to the grade level at which they will be teaching.

The outline below offers a broad summary of the content knowledge and basic skills required of environmentally literate educators, and should guide the preparation of instructors. A more detailed summary of *Excellence in Environmental Education—Guidelines for Learning (Pre K–12)* is included in the Appendix to this document, and the complete *Guidelines* document is referenced below.

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 literacy requires a familiarity with some basic modes of inquiry, a mastery of fundamental skills for gathering and organizing information, and an ability to interpret and synthesize information and communicate explanations.

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