Self Assessment Tool

The *Excellence in Environmental Education—Guidelines for Learning (Pre K–12)* describes what learners should know and be able to do when they have successfully completed a comprehensive, multidisciplinary environmental education program. Many of us know we do not yet have such a program for our students, but would like to know how we are doing and how far we have come. In other words, we want to assess the program elements we currently deliver, see the degree to which they provide a comprehensive set of learning experiences, and determine where the gaps are.

The following checklists were developed to enable educators to self-assess their environmental education programs. School administrators, classroom teachers, and environmental educators in other settings may use them to find out whether they are providing students with the entire array of pre K–12 learning experiences that will enable them to become environmentally literate.

We do not expect any one program to fully address all of the guidelines. For example, a nature center that provides school programs may find that their programs concentrate on developing student knowledge and skills in only one or two strands. A school district may use this tool to determine the guidelines that are entirely addressed through their classroom curricula and those that are best delivered in collaboration with community-based institutions.

We hope that you will use these checklists to identify the areas you feel you are fully addressing and then will ask yourself:

> Are there other places or teachers that provide these students with appropriate learning opportunities in the strands that we do not, and if not, should we or other partners in our community take on those challenges to enable all learners to get a more complete environmental education?

As noted at the beginning of each of the checklists, reading the entire entry for a guideline in the volume entitled *Excellence in Environmental Education—Guidelines for Learning (Pre K–12)* will give you a deeper understanding of the concepts and skills students are expected to develop and some specific examples of ways in which learner achievement might be demonstrated. We believe you will want to use that document and these checklists together, referring back and forth from one to the other.

Excellence in Environmental Education—Guidelines for Learning Pre K-4th Grade Self Assessment Tool

PLEASE NOTE: For more detailed information about the guidelines briefly listed below, see pages 11-28 of *Excellence in Environmental Education—Guidelines for Learning (Pre K–12)* produced by the North American Association for Environmental Education.

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides Pre K-4 students with learning experiences so that by the time they finish 4th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
Strand 1—Questioning, Analysis and Interpretation Skills			
A. Generate and develop questions that are appropriate for initiating inquiry.			
B. Design simple investigations.			
C. Locate and collect information about the environment and environmental topics from a variety of sources.			
D. Understand the need to use reliable information; explain some of the factors to consider in judging the merits of the information they are using.			
E. Describe data and organize information to show relationships and patterns.			
F. Work with models and simulations, using them to describe relationships, patterns, and processes.			
G. Describe their observations and develop simple explanations.			
Strand 2—Knowledge of Environmental Processes and Systems **2.1—The Earth as a Physical System**			
A. Identify and explain changes and differences in the physical environment.			
B. Identify and describe basic characteristics of and changes in matter.			
C. Describe the basic sources and uses of some different forms of energy (light, heat, etc.).			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides Pre K-4 students with learning experiences so that by the time they finish 4th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
2.2—The Living Environment			
A. Identify similarities and differences among a wide variety of living organisms; describe organisms' basic needs, habitats, and ways organisms meet their needs in different habitats.			
B. Explain that both plants and animals have different characteristics and that many of the characteristics are inherited from their parents.			
C. Explain basic ways in which organisms are related to their environments and to other organisms.			
D. Explain that living things need some source of "energy" to live and grow and that matter is recycled—e.g., through life, growth, death, and decay.			
2.3—Humans and Their Societies			
A. Identify ways that people act as individuals and as group members, and give examples of ways groups influence individual actions.			
B. Give examples of how experiences and places may be interpreted differently by people with different cultural backgrounds, at different times, or with other frames of reference.			
C. Describe government and economic systems that exist because people living together in groups need ways to do things (such as provide for needs and wants, maintain order, and manage conflict).			
D. Understand how people are connected at many levels—including the global level—by actions and common responsibilities that concern the environment.			
E. Recognize that change is a normal part of individual and societal life and that conflict is rooted in different points of view.			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides Pre K-4 students with learning experiences so that by the time they finish 4th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
2.4—Environment and Society			
A. Identify ways people depend on, change, and are affected by the environment.			
B. Describe ways places differ in their physical and human characteristics.			
C. Demonstrate an understanding of "resources" and describe various sources and origins of resources they use in their lives.			
D. Understand that technology is an integral part of human existence and culture.			
E. Identify and describe a range of local environmental issues and understand that people in other places also experience environmental issues.			
Strand 3—Skills for Understanding and Addressing Environmental Issues **3.1—Skills for Analyzing and Investigating Environmental Issues**			
A. Identify and investigate local environmental issues.			
B. Speculate about and explore the social, economic, and environmental consequences of issues and proposed solutions to them.			
C. Identify and evaluate alternative approaches to resolving issues.			
D. Discuss and critique ideas representing different perspectives; hear and respect viewpoints that differ from their own.			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides Pre K-4 students with learning experiences so that by the time they finish 4th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
3.2—Decision-Making and Citizenship Skills			
A. Examine and express their own views on environmental issues.			
B. Consider whether they believe action is needed in particular situations and whether they think they should be involved.			
C. Learn the basics of individual and collective action, by participating in close-to-home issues of their choosing.			
D. Evaluate the results of actions, understanding that civic actions have consequences.			
Strand 4—Personal and Civic Responsibility			
A. Identify the fundamental principles of U.S. society and explain their importance in the context of environmental issues.			
B. Understand the basic rights and responsibilities of citizenship.			
C. Possess a realistic self-confidence in their effectiveness as citizens.			
D. Understand that they have responsibility for the effects of their actions.			

Excellence in Environmental Education—Guidelines for Learning 5th-8th Grade Self Assessment Tool

PLEASE NOTE: For more detailed information about the guidelines briefly listed below, see pages 29-48 of *Excellence in Environmental Education—Guidelines for Learning (Pre K–12)* produced by the North American Association for Environmental Education.

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides 5th-8th grade students with learning experiences so that by the time they finish 8th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
Strand 1—Questioning, Analysis and Interpretation Skills			
A. Develop, focus, and explain questions that help them learn about the environment and do environmental investigations.			
B. Design environmental investigations to answer particular questions—often their own questions.			
C. Locate and collect reliable information about the environment or environmental topics using a variety of methods and sources.			
D. Evaluate the strengths and weaknesses of the information they are using.			
E. Classify and order data, and organize and display information in ways that help analysis and interpretation.			
F. Understand many of the uses and limitations of models.			
G. Synthesize their observations and findings into coherent explanations.			
Strand 2—Knowledge of Environmental Processes and Systems **2.1—The Earth as a Physical System**			
A. Understand the basics of most of the physical processes that shape the Earth, and relate differences in physical patterns to their causes.			
B. Understand the properties of the substances that make up objects or materials found in the environment.			
C. Begin to grasp formal concepts related to energy by focusing on energy transfer and transformations; and make connections among phenomena such as light, heat, magnetism, electricity, and the motion of objects.			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides 5th-8th grade students with learning experiences so that by the time they finish 8th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
2.2—The Living Environment			
A. Understand that biotic communities are made up of plants and animals that are uniquely adapted to live in particular environments.			
B. Understand and describe the importance of genetic variation in species and possible implications of species extinction.			
C. Understand major kinds of interactions among organisms or populations of organisms.			
D. Understand how energy and matter flow among the abiotic and biotic components of the environment.			
2.3—Humans and Their Societies			
A. Understand that how individuals perceive the environment is influenced in part by individual traits and group membership or affiliation.			
B. Gain an understanding of cultural perspectives on the environment and how the environment may, in turn, influence culture, as they become familiar with a wider range of cultures and subcultures.			
C. Become more familiar with political and economic systems and how these systems take the environment into consideration.			
D. Identify and explain ways in which the world's environmental, societal, economic, cultural, and political systems are linked.			
E. Understand that human social systems change over time and that conflicts sometimes arise over differing viewpoints about the environment.			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides 5th-8th grade students with learning experiences so that by the time they finish 8th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
2.4—Environment and Society			
A. Understand that human-caused changes have consequences for the immediate environment as well as for other places and future times.			
B. Describe, analyze, and make inferences about the characteristics of various places, and explore differences in perceptions and importance of places close to home and around the world.			
C. Understand that uneven distribution of resources around the world influences their use and perceived value.			
D. Link the human ability to shape and control the environment with our ability to create knowledge and develop new technologies.			
E. Describe a range of environmental issues at scales that range from local to national to global, and understand that people in other places around the world experience environmental issues similar to the ones they are concerned about locally.			
Strand 3—Skills for Understanding and Addressing Environmental Issues **3.1—Skills for Analyzing and Investigating Environmental Issues**			
A. Use primary and secondary sources of information, and apply their growing research and analytical skills to investigate environmental issues, beginning with those in their own community.			
B. Apply their knowledge of ecological and human processes and systems to identify the consequences of specific environmental issues.			
C. Identify and develop action strategies for addressing particular issues.			
D. Consider the assumptions and interpretations that influence the conclusions they and others draw about environmental issues.			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides 5th-8th grade students with learning experiences so that by the time they finish 8th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
3.2—Decision-Making and Citizenship Skills			
A. Identify, justify, and clarify their views on environmental issues and alternative ways to address them.			
B. Evaluate whether they believe action is needed in particular situations, and decide whether they should be involved.			
C. Begin to see themselves as citizens taking active roles in their communities; plan for and engage in citizen action at levels appropriate to their maturity and preparation.			
D. Evaluate the effects of their own actions and actions taken by other individuals and groups.			
Strand 4—Personal and Civic Responsibility			
A. Understand that societal values can be both a unifying and a divisive force.			
B. Understand the rights and responsibilities of citizenship and their importance in promoting the resolution of environmental issues.			
C. Possess a realistic self-confidence in their effectiveness as citizens.			
D. Understand that their actions can have broad consequences and that they are responsible for those consequences.			

Excellence in Environmental Education—Guidelines for Learning 9th-12th Grade Self Assessment Tool

PLEASE NOTE: For more detailed information about the guidelines briefly listed below, see pages 49-70 of *Excellence in Environmental Education—Guidelines for Learning (Pre K–12)* produced by the North American Association for Environmental Education.

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides 9th-12th grade students with learning experiences so that by the time they finish 12th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
Strand 1—Questioning, Analysis and Interpretation Skills			
A. Develop, modify, clarify, and explain questions that guide environmental investigations of various types, and identify factors that influence the questions they pose.			
B. Design investigations to answer particular questions about the environment—even developing approaches for investigating unfamiliar types of problems and phenomena.			
C. Locate and collect reliable information for environmental investigations of many types. Know how to use sophisticated technology to collect information, including computer programs designed to address, gather, store, and display data.			
D. Apply basic logic and reasoning skills to evaluate completeness and reliability in a variety of information sources.			
E. Organize and display information in ways appropriate to different types of environmental investigations and purposes.			
F. Create, use, and evaluate models to understand environmental phenomena.			
G. Use evidence and logic in developing proposed explanations that address their initial questions and hypotheses.			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides 9th-12th grade students with learning experiences so that by the time they finish 12th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
Strand 2—Knowledge of Environmental Processes and Systems **2.1—The Earth as a Physical System**			
A. Understand the major physical processes that shape the Earth; relate these processes, especially large-scale and long-term ones, to characteristics of the Earth's surface.			
B. Apply their understanding of chemical reactions to round out their explanations of environmental characteristics and everyday phenomena.			
C. Apply their knowledge of energy and matter to understand phenomena in the world around them.			
2.2—The Living Environment			
A. Understand basic population dynamics and the importance of diversity in living systems.			
B. Understand the basic ideas and genetic mechanisms behind biological evolution.			
C. Understand the living environment to be comprised of interrelated, dynamic systems.			
D. Account for environmental characteristics based on their knowledge of how matter and energy interact in living systems.			
2.3—Humans and Their Societies			
A. Understand the influence of individual and group actions on the environment and comprehend how groups can work to promote and balance interests.			
B. Understand cultural perspectives and dynamics and apply their understandings to particular contexts.			
C. Understand how different political and economic systems account for, manage, and affect natural resources and environmental quality.			
D. Analyze global social, cultural, political, economic, and environmental linkages.			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides 9th-12th grade students with learning experiences so that by the time they finish 12th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
E. Understand the functioning of public processes for promoting and managing change and conflict, and analyze their effects on the environment.			
2.4—Environment and Society			
A. Understand that humans are able to alter the physical environment to meet their needs and that there are limits to the ability of the environment to absorb impacts or meet human needs.			
B. Understand "place" as humans endowing a particular part of the Earth with meaning through their interactions with that environment.			
C. Understand that the importance and use of resources change over time and vary under different economic and technological systems.			
D. Examine the social and environmental impacts of various technologies and technological systems.			
E. Converse, write about, and evaluate environmental issues at scales that range from local to national to global; understand that these scales and issues are often linked.			
Strand 3—Skills for Understanding and Addressing Environmental Issues **3.1—Skills for Analyzing and Investigating Environmental Issues**			
A. Apply their research and analytical skills to investigate environmental issues ranging from local issues to those that are regional or global in scope.			
B. Evaluate the consequences of specific environmental changes, conditions, and issues for human and ecological systems.			
C. Identify and propose action strategies that are likely to be effective in particular situations and for particular purposes.			
D. Engage each other in peer review conducted in the spirit of open inquiry, knowing that environmental issues investigations can bring to the surface deeply held views.			

Check the appropriate column to indicate the degree to which your program(s) address each item. **Our program provides 9th-12th grade students with learning experiences so that by the time they finish 12th grade they are able to. . .**	Yes - fully addressed	Partly addressed	No - not addressed
3.2—Decision-Making and Citizenship Skills			
A. Communicate, evaluate, and justify their own views on environmental issues and alternative ways to address them.			
B. Decide whether action is needed in particular situations, and whether they should be involved.			
C. Plan for action based on their research and analysis of an environmental issue. If appropriate, take actions that are within the scope of their rights and consistent with their abilities and responsibilities as citizens.			
D. Evaluate the effects of their own actions and actions taken by other individuals and groups.			
Strand 4—Personal and Civic Responsibility			
A. Analyze the influence of shared and conflicting societal values.			
B. Understand the importance of exercising the rights and responsibilities of citizenship.			
C. Possess a realistic self-confidence in their effectiveness as citizens.			
D. Understand that their actions can have broad consequences and accept responsibility for recognizing those effects and changing their actions when necessary.			

Pulling It All Together

Now that you have completed the checklist(s) appropriate for your program(s), 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

Directions: Starting with Strand 1 on your first checklist, add up the total number of check marks for each of the three columns: Yes-fully addressed, Partly addressed, No-not addressed. Enter the total number in the appropriate column. If you have assessed programs for additional grade levels, also complete a summary for them using the same procedure.

	Grade 4 Total			Grade 8 Total			Grade 12 Total		
	Yes - fully addressed	Partly addressed	No - not addressed	Yes - fully addressed	Partly addressed	No - not addressed	Yes - fully addressed	Partly addressed	No - not addressed
Strand 1—Questioning, Analysis and Interpretation									
Strand 2—Knowledge of Environmental Processes and Systems									
2.1—The Earth as a Physical System									
2.2—The Living Environment									
2.3—Humans and Their Societies									
2.4—Environment and Society									
Strand 3—Sills for Understanding and Addressing Environmental Issues									
3.1—Skills for Analyzing and Investigating Environmental Issues									
3.2—Decision-Making and Citizenship Skills									
Strand 4—Personal and Civic Responsibility									

By examining the results of your self assessment you should be in a better position to identify those guidelines that are fully addressed by your program(s) and those that are not. Further, if you completed more than one of the checklists, you should have a clearer idea of the strengths of your program across different grade levels. This assessment is meant to be used as a diagnostic tool to help you gauge how far you have come in providing your students with a comprehensive environmental education program. Hopefully, you are now in a better position to develop programs and/or partnerships that will help you reach all of your environmental education goals.