

# Kansas City Region Environmental Education 2004 Perspective

## Table of Contents

### Part I

<b>Introduction .....</b>	<b>1</b>
<u>Executive Summary .....</u>	<u>2</u>
<u>Overview .....</u>	<u>3</u>

### Part II

<b>Strategy Guide .....</b>	<b>4</b>
<u>Defining Environmental Education for the Region.....</u>	<u>4</u>
<u>Building Kansas City Regional Environmental Education</u>	
<u>Capacity .....</u>	<u>8</u>
Critical Issues .....	8
Recommendations.....	8

### Part III

<b>The Study .....</b>	<b>12</b>
<u>Methodology .....</u>	<u>12</u>
<u>Summary of Demographics .....</u>	<u>13</u>
<u>Summary of Identified Trends .....</u>	<u>14</u>
<u>Redefining Environmental Education.....</u>	<u>18</u>
<u>Conclusion .....</u>	<u>20</u>

### Part IV

<b>Resources .....</b>	<b>21</b>
<u>Appendix A: NEEAP Environmental Education Program</u>	
<u>Component Definitions</u>	
<u>Appendix B: NAAEE Guidelines for Excellence</u>	
<u>Appendix C: KCEEN List of Potential Funders</u>	
<u>Appendix D: Governor’s Task Force Report: “Creating an</u>	
<u>Environmentally Literate Citizenry”</u>	
<u>Glossary</u>	
<u>Annotated Bibliography</u>	

## **Part I**

# **Introduction**

Educators dream of materials and methods that will transform students into critical thinkers. Producing a classroom full of thoughtful students who have problem solving skills and a clear awareness of the world around them is an attainable goal. There are educational materials that develop these skills while building awareness about the economic, social, political and ecological world.

Few educators realize that these materials are readily accessible. The use of these materials can help develop a healthy community and citizenry, and thus increase the region's overall quality of life.

The Kansas City region is fortunate to have many environmental education organizations that provide quality resources for teachers and administrators. However, these resources are underused. Educators are missing out on educational opportunities to strengthen the community and develop citizens who have the skills to solve problems.

This report offers a look at the issues effecting environmental education in the formal classrooms of the Kansas City region. It also identifies critical issues that must be addressed if better utilization of resources is to occur. Today's students can develop into tomorrow's quality leaders, but only if they are provided opportunities to hone critical skills needed to become responsible citizens and stewards of the natural and human-made environment. While there are many environmental education opportunities for the general public in the Kansas City region, the focus of this study is how formal classroom teachers are using environmental education resources in their classrooms.

## **Executive Summary**

In the fall of 2003, MARC conducted a qualitative study to research environmental education in the bistate Kansas City metropolitan region. While there are many environmental education opportunities for the general public in the Kansas City region, the focus of this study was how formal classroom teachers are using environmental education resources in their classrooms.

The study employed the following definition of environmental education: Modern environmental education looks at the ability of the earth to support the quality of human life that most people have come to enjoy. Effective environmental education focuses on the process or skills involved in how to think, not on the content of what to think.

For this study, representatives from Kansas and Missouri state education departments, school districts, schools and environmental education organizations were interviewed. The interviews were conducted to ensure representation from target audiences on both sides of the state line and include representation of environmental content areas. A total of 43 individuals completed the interview process.

The research identified three trends, which led to the development of two critical issues with suggested solutions:

Trend 1: A significant quantity of high-quality environmental education resources is available in the region, but they are not effectively marketed.

Trend 2: Teachers need training on how to integrate environmental education across the curriculum and implement it at all grade levels.

Trend 3: Environmental education resource providers as well as teachers and administrators need additional funding for environmental education to increase in the region.

Critical Issue 1: Create structure and components to improve the inclusion of environmental education in the formal classroom and enhance the integration of environmental education topics within and across standard academic subjects.

Critical Issue 2: Expand funding to meet current and future environmental education needs in the region.

A number of actions were recommended to address each critical issue. Area educators, administrators and resource providers must communicate and maximize the use of available resource in order to enhance the environmental education capacity in the area. Doing so will increase the quality of life in the Kansas City region.

## **Overview**

For those who understand the breadth of environmental education, this report will prove a useful tool for improving the quality of life in the Kansas City community. According to the Metro Outlook Public Survey conducted by the Mid-America Regional Council (MARC) in November and December 2000, 80 percent of area residents feel the most important components of the region's quality of life include a clean and healthy environment. Eighty-two percent of respondents felt that education was the top issue for local leaders to address, while 56 percent felt air quality and healthy environment were the top issues (MARC 2001).

In the fall of 2003, MARC decided to conduct this qualitative environmental study to help determine the role it should play in how to expand and improve environmental education in the bi-state Kansas City region. Early in the study, it became clear that the term "environmental education" was a hindrance to the improved integration of these materials into local classrooms.

Modern environmental education looks at the ability of the earth to support the quality of human life that most people have come to enjoy. The attributes of this quality of life are similar to the environmental needs of a sound economy. This broad view of environmental education is employed for the uses of this study.

The purpose of this paper is two-fold:

- To educate readers about the holistic reach of quality environmental education; and
- To identify critical issues and needs of the region to build the regional environmental education capacity.

Intended audiences for this document include:

- Agencies and organizations that provide environmental education resources (called resource providers or referred to as non-formal educators);
- Schools and organizations that use these resources (called formal educators); and
- Other interested people, including those who should be using environmental education resources.

## Part II Strategy Guide

### Defining Environmental Education for the Region

Defining environmental education can be a difficult task. Every individual seems to have a different definition. This variation in definitions exists even among professionals working in the field. The meaning people assign to environmental education stems from their personal and professional experiences as well as their social background and academic achievements. This range of interpretation is evident in how scientists from various backgrounds view environmental education. Those from a natural science background tend to focus on conservation and preservation of ecosystems and natural resources, while those from a social science background emphasize management and protection of the environment through human behavior. Economists bring in yet another perspective by looking at the human benefits such as monetary gain. While all of these perspectives are different, they all examine the role human beings play in catalyzing changes in the natural world by understanding the relationship between natural and man-made environments.

With this background, it is not surprising that participants in the MARC Environmental Education study had vastly different conceptions about environmental education. With more than 90 percent of participants acknowledging the problems environmental education semantics play in promoting the programs, how environmental education is defined warrants a closer look.

**Effective environmental education focuses on the process or skills involved in how to think, not on the content of what to think.**

### From National Environmental Education Resources

Clarification must first be made between environmental information and environmental education. The distinction presented here is taken from the U.S. Environmental Protection Agency (EPA) Region 10 guidelines for submitting resources. According to the EPA:

- Environmental information is comprised of resources that furnish background information and present useful, relevant, factual and up-to-date data about the environment.
- Environmental education is comprised of resources that go beyond just information and provide opportunities for critical and creative thinking and/or problem solving skills to be used. Environmental education does not advocate a specific viewpoint or course of action. Instead, environmental education encourages informed and responsible decision making by weighing the components of an environmental issue (EPA 2003).

Knowing that several professional fields play critical roles in environmental education, it is probably most useful to focus on the *process* of environmental education in defining it. With this in mind, the most widely-used definition of environmental education is from a United Nations Educational, Scientific and Cultural Organization (UNESCO) declaration, from Tbilisi in 1978. It states:

Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO 1978).

A widely agreed upon outcome of environmental education is a more environmentally-literate citizen. An environmentally-literate citizen is one who understands ecological and social-political systems and uses that understanding to make decisions that pose consequences for the quality of the environment. Building an environmentally-literate citizenry will require an on-going effort that encompasses knowledge and skill in the sciences, social sciences and humanities, and allows for repeated opportunities to employ said knowledge and skills.

According to the Belgrade Charter of the United Nations Environment Programme (UNEP),

The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones (UNESCO-UNEP 1976).

Three objectives adopted in the Tbilisi Declaration have served as the foundation for many of the accomplishments in the field of environmental education in the past 25 years. The objectives, which have passed the test of time, are:

- To foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas;
- To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment; and
- To create new patterns of behavior in individuals, groups and society as a whole towards the environment (UNESCO 1978).

Effective environmental education focuses on the process or skills involved in how to think, not on the content of what to think. Creating an environmentally-literate citizenry means having citizens who can process information, critically analyze it, synthesize multiple ideas and develop strategies to deal with the issues. Factual information is necessary in this process, but information without process skills will not adequately meet society's needs. The environment is connected to most of the issues society faces today,

and students and adults need to have a healthy baseline from which they can reason and make decisions for the future.

A list of components has been identified through National Environmental Education Advancement Project (NEEAP) capacity-building initiatives to help measure successful state-level environmental education programs. A combination of structure, program and funding components are commonly found in comprehensive environmental education programs.

**Components to help measure successful state-level  
environmental education programs**  
from NEEAP capacity-building initiatives

Not all components are necessary for comprehensive environmental education programs, but appropriate prioritization must occur. **Definitions of the following components are found in Appendix A.**

<b>Structure Components</b>	<b>Funding Components</b>	<b>EE Program Components</b>
<ul style="list-style-type: none"> <li>• State EE master plan</li> <li>• State EE board or advisory council</li> <li>• State interagency committee</li> <li>• State EE office</li> <li>• State-level EE centers/regional offices</li> <li>• State EE association</li> <li>• Online database of EE resources</li> <li>• State curriculum/resource guides</li> <li>• Annual EE conference</li> </ul>	<ul style="list-style-type: none"> <li>• General revenue</li> <li>• Fees, fines, taxes and lottery</li> <li>• Public/private grants and donations</li> <li>• EE grants program</li> </ul>	<ul style="list-style-type: none"> <li>• K-12 EE instruction requirements</li> <li>• EE guidelines /standards</li> <li>• State assessment that includes EE</li> <li>• Coordinated teacher in-service programs</li> <li>• EE correlations to state content standards</li> <li>• EE training for pre-service teachers</li> <li>• EE model or resource schools</li> <li>• EE training for non-formal educators</li> <li>• EE training for teacher educators: university faculty and non-formal providers</li> </ul>

While this list was compiled with state-level programs in mind, there is much relevance to the Kansas City regional environmental education efforts. Not all components are necessary for comprehensive environmental education programs, but appropriate prioritization must occur for the Kansas City region to build its environmental education capacity.

In addition to proper components being in place for a sustainable comprehensive environmental education program, sound environmental education materials must also be available. In 1996, the North American Association for Environmental Education (NAAEE) established guidelines for excellence. While this study did not determine the level of excellence current resources provide, these guidelines should be kept in mind as new initiatives are undertaken. There are six key characteristics of high-quality environmental education materials. For each of the characteristics, guidelines for environmental education materials to follow are provided. To help evaluate existing materials, each guideline is accompanied by indicators to gauge how well materials follow the rule. These guidelines help provide a standard aim in developing new materials as well as judge relative merit of existing materials. The complete guidelines are included in Appendix B. The six categories are as follows:

## **NAAEE 1996 Guidelines for Excellence**

There are six key characteristics of high quality environmental education materials. For each of the characteristics, guidelines for environmental education materials to follow are provided. To help evaluate existing materials, indicators to gauge how well materials follow the guidelines accompany each guideline.

**#1 Fairness and accuracy: EE materials should be fair and accurate in describing environmental problems, issues and conditions and in reflecting the diversity of perspectives on them.**

- 1.1 Factual accuracy
- 1.2 Balanced presentation of differing viewpoints and theories
- 1.3 Openness to inquiry
- 1.4 Reflection of diversity

**#2 Depth: EE materials should foster awareness of the natural and built environment, an understanding of environmental concepts, conditions and issues, and an awareness of the feelings, values, attitudes and perceptions at the heart of environmental issues, as appropriate for different developmental levels.**

- 2.1 Awareness
- 2.2 Focus on concepts
- 2.3 Concepts in context
- 2.4 Attention to different scales

**#3 Emphasis on skills building: EE materials should build lifelong skills that enable learners to address environmental issues.**

- 3.1 Critical and creative thinking
- 3.2 Applying skills to issues
- 3.3 Action skills

**#4 Action orientation: EE materials should promote civic responsibility, encouraging learners to use their knowledge, personal skills and assessments of environmental issues as a basis for environmental problem solving and action.**

- 4.1 Sense of personal stake and responsibility
- 4.2 Self-efficacy

**#5 Instructional soundness: EE materials should rely on instructional techniques that create an effective learning environment.**

- 5.1 Learner-centered instruction
- 5.2 Different ways of learning
- 5.3 Connection to learners' everyday lives
- 5.4 Expanded learning environment
- 5.5 Interdisciplinary
- 5.6 Goals and objectives
- 5.7 Appropriateness for specific learning settings
- 5.8 Assessment

**#6 Usability: EE materials should be well designed and easy to use.**

- 6.1 Clarity and logic
- 6.2 Easy to use
- 6.3 Long-lived
- 6.4 Adaptable
- 6.5 Accompanied by instruction and support

## **Building Kansas City Regional Environmental Education Capacity**

The critical issues and subsequent suggestions outlined here were drawn from the MARC environmental education study data. The data were collected primarily from individual interviews with representatives from Kansas and Missouri state education departments, school districts, schools and environmental education organizations. The critical issues and suggestions are designed to serve as a template to move environmental education ahead in the metro Kansas City region.

### **Critical Issues**

The following critical issues are essential to increasing capacity of environmental education in the formal classroom for the Kansas City region.

Issue 1: Create structure and components to improve the inclusion of environmental education in the formal classroom and enhance the integration of environmental education topics within and across standard academic subjects.

Issue 2: Expand funding to meet current and future environmental education needs in the region.

### **Recommendations**

A collaborative effort among environmental education stakeholders must be made for substantial progress to be realized. Unfortunately, without an identified entity to take the lead and rally other stakeholders, progress may be slow or nonexistent. It is hoped that Kansas City region's environmental education stakeholders will step forward and work collectively to address these issues. Following are suggestions for how the issues might be addressed.

#### **CRITICAL ISSUE 1: Create structure and components to improve communication about and inclusion of environmental education in the formal classroom and enhance the integration of environmental education topics within and across standard academic subjects.**

One of the major issues identified in this study from both receivers and providers of environmental education is the need to improve communication and networking to meet programmatic needs. These needs include:

- Providers of environmental education must regularly communicate with an organized agenda to build and maintain a viable network and partnerships.
- Regular communication between providers and formal education representatives, administration and teachers must occur for environmental education to adapt and meet the changing demands and needs from the formal classroom.

- Environmental education resources must be properly aligned to state standards and highlight specifically how they can help attain NCLB requirements.
- Avenues to communicate this information must reach both teachers and administrators.
- Environmental education resource providers must stay abreast of regional and local environmental issues so they can highlight current issues in their programming when appropriate.

**Suggestion 1: Initiate a taskforce to establish commitment from essential stakeholders and create a sustainable structure for communicating environmental education resources.**

- This taskforce could be established by expanding the Kansas City Environmental Education Network (KCEEN) to include representation of teachers and administrators from representative districts, state and local government offices and agency personnel. KCEEN is currently comprised mostly of environmental education organization and agency representatives.
- This taskforce could oversee implementation of suggestions from this report and ensure longevity and adaptation of environmental education in the community.
- The taskforce could establish its role and the accompanying lines of accountability within the larger education and environmental education communities in the region.
- The taskforce could establish and maintain a working relationship with Kansas Association for Conservation and Environmental Education (KACEE) and Missouri Environmental Education Association (MEEA) to coordinate regional efforts.

**Suggestion 2: Assist environmental education resource providers in aligning their resources to appropriate state and district standards.**

- Identify preferred alignment protocol for Missouri and Kansas.
- Hold workshops for environmental education resource providers to help align their educational materials and show how they can be integrated across the curriculum.

**Suggestion 3: Identify and engage in avenues to communicate availability of environmental education resources to teachers and administrators.**

- Develop and implement a professional development opportunity for area teachers to promote aligned environmental education resources emphasizing how these resources can help meet No Child Left Behind (NCLB) needs.
- Model the use of these resources for teachers and administrators instead of simply providing an electronic or hard copy. This is critical for increased use of resources.
- Host an environmental education resource fair designed for administrators and teachers highlighting ways to use environmental education resources to meet NCLB needs.

- Host a KCEEN roundtable to promote environmental education and provide the opportunity for environmental education providers and area teachers to network.

**Suggestion 4: Create new opportunities to help environmental education resource providers stay abreast of regional and local environmental issues.**

- Host a local environmental issues seminar for area environmental education providers to stay current on local issues so they can highlight current issues in their programming where appropriate.
- Create an electronic means of communication with interested environmental education providers to keep them updated on local environmental education issues. A Web site or list-serve would be ideal.

**Suggestion 5: Package and market existing environmental education resources to formal education teachers and administrators.**

- Highlight process skills used in the resource to help show how resources can help develop a healthy community and citizenry and thus increase the region's overall quality of life.
- Downplay the term "environmental education" in marketing resources and instead focus on the desired outcomes from use of the resources.
- Target resources and marketing to emphasize how environmental education can help strengthen results of NCLB demands.

**CRITICAL ISSUE 2: Expand funding to meet current and future environmental education needs in the region.**

Most providers spend disproportionate amounts of staff time struggling to raise funds and stay abreast of the changing formal education demands. Likewise, administration and teachers also must identify funding sources in order to pay for and use their desired environmental education resources. A critical need identified in this study is the necessity to expand funding opportunities for environmental education. This need has three major components:

- Identify funding to carry out previously-listed suggestions.
- Identify potential funding sources.
- Identify appropriate entities to pursue funding opportunities.

**Suggestion 1: Identify funding sources to carry out environmental education in the region.**

- Determine the feasibility of obtaining funding from foundations, businesses and federal and state granting entities by approaching them to discuss environmental education initiatives in the region.
- Discuss program and capacity building funding opportunities with EPA Region 7.
- Review the list of potential funders compiled by KCEEN. This list is provided in Appendix C.

- Identify local government funding opportunities to carry out environmental education in the region.

**Suggestion 2: Identify appropriate entities and provide training to pursue funding for environmental education in the region.**

- Pinpoint individual organizations able to serve as program managers for individual or partnership programs.
- Identify and approach individuals and/or organizations to research and write grants.
- Coordinate efforts to assist schools and environmental education resource providers with grant writing and fundraising strategies to increase efficiency.

## Part III The Study

In the fall of 2003, MARC conducted this study to research environmental education in the bistate Kansas City metropolitan region. This eight-county area includes Johnson, Leavenworth and Wyandotte counties in Kansas and Cass, Clay, Jackson and Platte, and Ray counties in Missouri.

Qualitative research, by definition, is not representative of an entire population and therefore should not be generalized to the whole population. Qualitative research usually relies on a relatively small sample, and the typical unstructured question format does not allow standardized comparisons between individuals. The findings of this research method are subjective and directional. Qualitative research typically illustrates *why* something is happening and quantitative research typically tells *what* is happening. Qualitative research is best suited to generate insights that can spark ideas, provide background to aid in judgment or to act as a precursor to quantitative evaluation.

### Methodology

The research team used purposeful sampling to maximize variation within the timeframe and budget limitations. Representatives from Kansas and Missouri state education departments, school districts, schools and environmental education organizations were interviewed in order to identify suggestions for improving integration of environmental education in the classroom. The interviews were conducted to ensure representation from target audiences on both sides of the state line and include representation of environmental content areas (air, energy, general, habitat/conservation, solid waste and water), urban, suburban, rural schools and public and private schools.

Interview questions were constructed based on input from MARC environmental staff and KCEEN members, which included representatives from state environmental education associations, state agencies, local non-profit environmental organizations, former school teachers and MARC staff. These two groups also helped identify potential interviewees based on knowledge and involvement, present or past, with environmental education. A total of 47 individuals were contacted to participate, with 43 completing the interview process. Interviews were conducted in person (19), over the phone (12) or by e-mail (12). Follow-up discussions were conducted with individual respondents as well as with MARC environmental staff and KCEEN members for clarification of data and verification of feasibility of developing recommendations. A secondary look at defining environmental education was also conducted during the February 2004 KCEEN roundtable.

## Summary of demographics

The purposeful sampling resulted in a total of 43 people being interviewed. The chart below outlines the target and actual numbers interviewed for each demographic strata: representatives from Kansas and Missouri state education departments/boards, school districts, formal classroom teachers and environmental education resource providers.

### Target and actual reach interviewed

	Target	Actual Missouri	Actual Kansas	Actual Total
Resource provider representatives	5-10	15*	15*	20*
State dept. of ed/school board representatives	1-3	1	1	2
School district representatives	3-5	3	3	6
Formal classroom teachers	5-10	7	8	15
Total # interviewed				43

\* Some resource providers serve both states

The interviews were conducted to include representation of environmental content areas (air, energy, general, habitat/conservation, solid waste and water). The chart below outlines the content reach of the environmental education resource providers interviewed.

Content emphasis*	# Providers represented
Air	4
Solid waste	5
Water	8
Habitat/conservation	7
Energy	2
General	3
Total providers interviewed	20

\* Many resource providers provide resources in multiple content areas

The interviews were conducted to ensure representation from urban, suburban and rural schools and public and private schools. The chart below outlines how interviewees defined their school breakdown.

### School breakdown\* (as defined by interviewee)

Location/type	#
Inner city	5
Suburban	7
Rural	3
Public	13
Private	2
Total teachers interviewed	15

\*Trends crossed all school types – no specific trends were identified by school type.

## **Summary of identified trends**

### **Trends breakdown**

Participants were interviewed with a series of open-ended questions. Not all questions were asked to all participants. Depending on the responses of the participants, follow-up questions for clarification may have been asked. Percentages used in the following section were calculated on the number of *possible* respondents to the questions or issue, not necessarily on the total number of people interviewed, since not all respondents were asked the same questions. Due to the majority of the questions being open ended, there were wide ranges of response, thus creating low response rate percentage in categorizing some responses. Despite low percentages, the results communicated should be seriously considered when planning for future environmental education endeavors. Three trends were identified from the data.

### **Trend #1: A significant quantity of high-quality environmental education resources is available in the region, but they are not effectively marketed.**

Environmental education resources in the region are of high quality and plentiful, according to study participants. However, many participants commented on how terminology is negatively affecting marketing attempts. Some resource receivers expressed confusion about which of the available resources were the most appropriate for their use. Resource providers identified communication difficulties in relaying resource offerings to teachers and schools. Similarly, teachers expressed frustration in gaining administrative support for programs and resources due to perceptions of environmental education.

Other findings included:

- Word of mouth was the most frequently identified means of finding out about environmental education resources.
- Workshops and conferences were mentioned frequently as beneficial means of staying in touch and up-to date with resources and their uses.
- The Environmental Education Resource Guide published by MARC in 2003 and 2004 was also frequently mentioned as a useful communication tool.

According to 91.2 percent of study participants, many environmental education resources are available in the region.

Sample participant responses are listed below. All responses are coded by type of study participant.

**KEY: S – State; R – Resource provider; T – Teacher; D – District.**

- “There are a lot of environmental education programs out there and people don't know about them.” – R
- “Diversity of resources available – levels of options of involvement; a lot of dedicated people working in the field.” – R
- “There are a lot of good resources for us to use – but most teachers don't know about them.” – T

Of the study participants, 88.2 percent felt that high-quality environmental education resources are available in the region.

Participant responses included:

- “There are good environmental education materials and resources are available to all people through outreach programs and Internet sites.” – T
- “There are a lot of good resources out there.” – R
- “There are a lot of good environmental education activities that provide a connection for kids to make knowledge relevant.” – S
- “There are a lot of good resources – but not everyone knows about them.” T

More than 90 percent of study participants expressed concern about how environmental education is perceived by teachers and administrators not currently using the resources.

Participant responses included:

- “The word environment – the language, the word. People have barriers to certain terms, don’t use environment. Almost need two sets of vocabulary – government-based words and words for the people.” – R
- “No communication to get info.” – T
- “Most teachers don’t know about environmental education resources.” – S
- “Environmental education resource information is not easily accessible, particularly to those NOT in the know.” – D

**Trend #2: Teachers need training on how to integrate environmental education across the curriculum and implement it at all grade levels.**

Teachers and resource providers alike admittedly expressed the need for environmental education to be integrated across the curriculum at all grade levels and not treated as a stand-alone subject. Many commented that despite environmental education being such a logical conduit to connect core subjects, most teachers do not know how to integrate environmental education into their curriculum and need training. Teachers and administrators requested integrated resources that are aligned to meet state and district standards and to conduct training that model their use.

According to 97.4 percent of study participants, environmental education should not be treated as a single subject, but rather integrated throughout the disciplines at all grade levels.

Participant responses are listed below.

**KEY: S – State; R – Resource provider; T – Teacher; D – District.**

- “Environmental education is implemented separately and not integrated – it needs to be integrated to maximize reach.” – D
- “Environmental education needs to get beyond the view of a mutually exclusive subject area – admin, teachers, even legislators, probably – need to know how intertwined environmental education can be through the subjects.” – D

- “Incorporate environmental education with MAP skills and integrate with different subject areas.” – T
- “Environmental education not viewed as a sustainable subject – people act only when there is a problem.” – R
- “Environmental education needs to be in all grades – perhaps with a spiral curriculum.” – T
- “Environmental education can provide the opportunity for students to use classroom knowledge across the disciplines in the outdoors and in their environment.” – R

Ninety-five percent of resource providers and receivers said that more environmental education training that models how to use the resources is needed.

Participant responses included:

- “Teachers are not aware of the resources or how to use them – they need to be shown.” – D
- “Teachers reluctant to do environmental education because they don't have the answers – they need training.” – R
- “There needs to be more environmental education training that covers the spectrum at the right age: 1) awareness/attachment to nature; 2) how nature works – cycles; 3) behavior impact and 4) how we make decisions (roles of individuals and society). This way teachers can teach environmental education at all grade levels and across the subjects.” – R
- “I am more apt to do activities or use materials if I've seen them in use.” – T
- “Teachers are scared of environmental education content – they need to use it to get comfortable with it. They need modeling.” – D
- “Curriculum isn't there (aligned and integrated, easy to use packages) and administration just doesn't know. Pre-service teachers are taught content and methods separately – they need to be together and modeled.” – S

**Trend #3: Environmental education resource providers as well as teachers and administrators need additional funding for environmental education to increase in the region.**

There was unanimous agreement among all participants that more funding is necessary to increase the environmental education capacity of the region. Environmental education resource providers typically fall into one of three funding scenarios:

- Working with funding coming from governmental sources;
- Self-supporting with revenue generated from program fees; or
- Spending a disproportionate amount of time seeking alternative funding to support the programs.

Likewise, teachers and administrators cited constrained budgets. These participants stated that they are often not able to participate in environmental education opportunities because of the need to raise funds to cover busing and program expenses.

All study participants mentioned funding as a limiting factor in participation in or offering of environmental education opportunities.

Participant responses are listed below.

**KEY: S – State; R – Resource provider; T – Teacher; D – District.**

- “Environmental education can improve quality of life if properly funded; the environment is a key component of quality of life – thus there is a high value on the environment – but that doesn't translate into how money is allocated. We don't emphasize environmental quality.” – R
- “Would love to have some entity go out and write all of our grants so there is one big pot of money and we only have to apply once, instead of using 50 percent of staff time trying to raise funds to get job done.” – R
- “Funding to cover program fees would make it easier for me to do programs.” – T
- “One hurdle is there is no structure in place for assuring ongoing funding or teaching/learning for environmental education in K-12 public schools.” – S
- “Train teams of teachers to be models back in their schools/districts – fund them to go through training during the day – don't rely on weekend/evening training times.” – D
- “The state has not officially mandated/legislated a structure for assuring environmental education and its continuation into the future. I see critical issues to be the need to officially mandate/require through legislation a structure for assuring environmental literacy through education in schools and communities; and that it provide adequate funding to assure that this critical mission is implemented.” – S
- “Funding is needed across the board to advertise and increase capacity to reach schools; tools to clarify mission of organizations and get to know what others are doing.” – R

## **Redefining Environmental Education**

As many study participants noted, environmental education resources need to be better marketed to teachers and administrators. Not all area educators understand the value of environmental education as an integrated tool in the classroom. Similarly, educators don't fully comprehend how environmental education affects quality of life in the region as a whole.

Part of this lack of understanding is due to the wide interpretation of the definition of environmental education, as was evident in this study. For instance, one teacher was very apologetic about not being able to include environmental education in the curriculum in recent years because of focus on NCLB standards. At the end of the interview, this teacher showed the interviewer an outdoor classroom. She commented on how all the students grades K-12 had been involved and they had used math, communication arts, science and art skills in designing and constructing the classroom. Although she never used the term environmental education in describing the outdoor classroom, the teacher had been doing environmental education as the students planned and constructed their classroom. This teacher had successfully integrated environmental education through the grade levels and disciplines as the students discussed why they were doing what they were doing.

Knowing that environmental education semantics were causing considerable inconsistency in participants' views, a second group of formal and informal educators attending an environmental education roundtable were asked to define environmental education. Taking a closer look at how educators define environmental education can help the region determine more effective ways to market environmental education resources. The emphasis for marketing environmental education resources should center on the outcomes resulting from using the resources and not semantics.

In the words of Dr. James L. Bowyer, "What is true is of little importance in politics. It is, instead, what is perceived to be true that makes all the difference" (Bowyer, n.d.). Although Dr. Bowyer was referring to the forestry industry, the relationship he describes between fact and perception holds true for the environmental education field. The wide range of definitions for environmental education gathered in this research illustrates this point.

Here are some ways formal and informal educators described environmental education:

### **What is (the purpose of) environmental education?**

Only providers were asked this question.

- "Environmental education is a critical means to improving quality of life."
- "Environmental education can empower individuals and communities to take responsible actions and make a difference."
- "Create a sense of shared risk; community is fragmented by multiple objectives – sprawl issue...individual worry versus community issue – need to deal with self-gratification issues."
- "More responsible citizens and stewards towards the environment."

- “Give students the sound science that they need to make good decisions of their health and safety; adults are not environmentally literate.”

From the environmental education roundtable:

Respondents were an unidentified mix of resource providers and teachers.

- “Environmental education = studying our surroundings – including natural habitats and human-made elements – and how we interact with these elements and how the elements interact with each other – utilizing exploration, critical thinking and problem solving. Includes components of history, culture, science, ethics and other areas.”
- “Environmental education is studying and learning about human interactions with nature.”
- “Environmental education is teaching our children to respect the environment – to be aware of their impact on the environment and how they can positively affect their environment.”
- “Environmental education is learning to become a steward of our resources such as water, pollution, recycling, reduction and reuse.”
- “Environmental education is learning about our world, our impact on the world and how we can be better stewards of our natural resources and human-made products.”
- “What is environmental education – educating on the effect that people's actions have on the quality of life. Teach how we can help maintain and develop a sustainable environment.”

#### **How can environmental education best impact the community?**

**KEY: S – State; R – Resource provider; T – Teacher; D – District.**

- “Understand the interconnectedness of human quality of life to the environment.” – D
- “Environmental education can help foster a stronger sense of community by having people focus on local issues and work towards common goals.” – R

#### **What are the environmental education needs of the community?**

Only providers were asked this question.

- “Educators need to move beyond awareness and focus on behavior changes.”
- “People need the skills to make informed decisions and modify their behavior when possible.”
- “Create a more environmentally-literate citizenry.”

## **Conclusion**

Three trends were identified from the study data. First, a significant quantity of high-quality environmental education resources is available in the region, but they are not effectively marketed. Second, teachers need training on how to integrate environmental education across the curriculum and implement it at all grade levels. Third, environmental education resource providers as well as teachers and administrators need additional funding for environmental education to increase in the region.

Environmental education resources will be better utilized if they are marketed as integrated classroom tools that enhance quality of life. The perception of environmental education must be infused with accurate facts to allow better marketing and reception of resources. When the use of these resources is maximized, students will hone critical skills needed to become responsible citizens and stewards of the natural and human-made environment. Quality of life in the Kansas City region will increase.

## **Part IV**

### **Resources**

[Appendix A: NEEAP Environmental Education Program  
Component Definitions](#)

[Appendix B: NAAEE Guidelines for Excellence](#)

[Appendix C: KCEEN List of Potential Funders](#)

[Appendix D: Governor's Task Force Report: "Creating an  
Environmentally Literate Citizenry"](#)

[Glossary](#)

[Annotated Bibliography](#)

## **Appendix A**

## **NEEAP Environmental Education Program Component Definitions**

Components of State-Level Comprehensive Environmental Education Program:  
Definitions of Components (1998) (as developed for the 1998 Status of EE in the U.S. Survey)

(Not all components are necessary to have in place for a comprehensive EE program. The prioritization of components and how they are achieved varies from state to state. Ultimately, comprehensive EE programs involve a majority of the components listed.)

### **I. Program Components**

#### **State Master Plan**

A comprehensive state plan whose purpose is to chart a course of action and provide an implementation schedule for meeting state goals for EE. These plans set forth the goals and objectives for EE within the state and typically list who is best suited to achieve or implement these goals and objectives (e.g. the legislature, the business community, school administrators, etc.). They are created through input from a wide range of EE leaders, educators, legislators, state agency representatives, business representatives, and others.

#### **State EE Association (or other EE Capacity Building Organization) Strategic Action Plan**

A written plan that identifies an organization's vision, mission, goals, and strategies. Some goals and objectives in a state EE association strategic action plan may relate to achieving comprehensive EE programs at the state level. Strategic action plans may also list timelines, budgets, and persons responsible for meeting objectives.

#### **Regular Strategic Planning Meetings/Retreats**

Meetings or retreats which occur at least once or periodically throughout the year, where EE organization leaders work together to develop, evaluate and /or enhance the organization's strategic plan and board and organizational development.

#### **Coordinated Statewide Teacher In-service Training in EE**

Teacher training that targets K-12 teachers and enables them to become fully competent to teach to all of the goals of EE. A coordinated system of in-service programs that makes EE training available to all teachers within a state and allows for professional development options in EE as well as credits to maintain teaching certification.

#### **Required EE Teacher Training Prior to Teacher Certification or Licensing**

EE pre-service training required for teachers desiring to teach certain subjects or grade levels that provides instruction in and ensures competencies in environmental/ecological concepts, the range of instructional and assessment methodologies used with EE and effective approaches for infusing or inserting EE into the curriculum.

Training (in EE and Current Education Reform Strategies) for Those Who Provide EE Professional Development to Teachers

Workshop/sessions for nonformal educators (who provide EE training to teachers) to increase knowledge and skills in EE content and methodology, and/or understanding of current education reform strategies and issues.

Workshops or sessions might include training on: pedagogy, educational buzzwords, state learning standards, student assessment, and connecting to schools and environmental education resources.

EE Training for Those who Provide EE Professional Development to Nonformal Educators

Workshop/sessions for nonformal educators to increase knowledge and skills in EE content and methodology, and/or understanding of current education reform strategies and issues. Workshops or sessions may include training on: pedagogy, educational buzzwords, state learning standards, student assessment, and connecting to schools and environmental education resources.

EE Training for University Faculty and/or Formal Educators who Provide EE Training to Teachers

Opportunities for faculty and/or formal educators who provide EE training to teachers, to increase their knowledge and skills in EE content and methodology, and/or understanding of current education reform strategies and issues.

**State-wide Annual EE Conference**

Annual multi-day gathering, organized to: 1) promote EE within a state, and 2) address the needs of EE professionals within the state. Examples of activities include: workshops on research, teaching methods and curriculum/program content; field trips; presentations of critical issues; displays; planning meetings, and networking opportunities.

**Statewide EE Semi-Annual Workshop/Meetings**

Semi-annual event which is typically shorter in length, smaller in numbers, and more informal than statewide conferences. Provides environmental educators throughout a state with the opportunity to network and increase their own knowledge of and skills in EE in a focused and intimate setting. Workshops are often seasonal and provide an in-state theme with one or several related sessions.

**State By-law or Requirement for K-12 Environmental Education Instruction**

Requirement that school districts and K-12 teachers incorporate EE into their existing curriculum. This component is typically achieved through legislative or administrative avenues.

**Environmental Education Learner Objectives/Outcomes**

Objectives, Outcomes, Benchmarks, Essential Skills, etc. are intended to assist educators in developing specific instructional plans and assessment strategies for incorporating EE in given subject areas. These help ensure instructional consistency within academic disciplines among the state's schools and may be exit oriented or lesson oriented. Within

many of the states, the EE Learner Outcomes/Objectives, Benchmarks, Essential Skills, etc. are found within the science, geography, and social studies standards.

### **EE Correlations to State Content Standards**

EE correlations identify learner outcomes, objectives, benchmarks, and/or essential skills within state content standards which also meet the goals and objectives of EE.

Correlations projects compare state content standards with EE curriculum.

### **EE Curriculum Guide or other state publication providing direction to the development of an EE program at the school district level**

EE Curriculum Guides often include instructional strategies, resource listings and suggestions for developing curriculum. They assist in integrating EE into existing curriculum and helping with curriculum/school restructuring. EE Curriculum/Resource Guides sometimes have units and lessons for use by teachers and school districts.

### **EE Model or Resource Schools**

K-12 schools that have utilized EE as a vehicle for successfully accomplishing school improvement goals. EE model or resource schools are often the "hub" or contact point for other schools/educators seeking EE resources in a district.

### **State Assessment Program that includes EE**

Application of assessment "tools" (including standardized testing, authentic/performance assessment measures and other evaluation methods) to determine the extent to which EE curriculum and instruction is having the desired impact on students.

### **Statewide Environmental Literacy Assessment**

Application of assessment "tools" to determine whether or not K-12 students, college students, and the general public are actually synthesizing and applying environmental knowledge, awareness, and issues and action skills that would qualify them as environmentally literate citizens.

### **EE Awards/Recognition Program**

Rewards or recognition of outstanding teachers, administrators, non-formal educators, school and youth groups, organizational members, and other individuals and groups that have contributed to excellence in the field of EE.

## **II. Structure Components**

### **State EE Board or Advisory Council**

State EE Boards or Advisory Councils are the policy making and implementation oversight bodies for many state EE programs. EE Boards/Councils include key representatives of sectors/constituencies supporting EE including school teachers and administrators, university and business representatives, legislators, state agency representatives, and leaders from nonprofit conservation organizations.

These entities often oversee implementation of an EE master plan's recommendations. Further it may also complete assessments of the status of EE statewide, continue to identify needs and set priorities for EE, consult with the Department of Education (or equivalent), Department of Natural Resources and other state agencies and offices about

EE program priorities, complete regular reports to the legislature, oversee an EE grants program and solicit funds.

#### **State EE Office**

State office and staff with EE responsibilities such as the following: assess the status of environmental literacy; prepare an EE plan; staff the EE grants program; promote and assist in the development of EE learner outcomes; promote and aid in the development of EE preservice and in-service teacher training; cooperate with federal government, agencies and the private sector around EE programs; function as an EE clearinghouse; initiate, develop, implement, evaluate, and market nonformal EE programs; initiate research on EE; and coordinate EE conferences on a periodic basis.

#### **State Level EE Centers and/or Regional Offices**

EE Centers whose primary goal is to assist educators and administrators throughout all levels of the education system in the incorporation of EE as required or recommended by the state legislature. Typical services include: in-service EE programs, assistance in infusing EE into district and school curriculum, resource libraries, school networking programs, and EE literacy assessment projects.

#### **Interagency State EE Committee**

Committee of state agency representatives (sometimes include Federal agency representatives with state offices) which work to eliminate overlap in EE programs and to leverage their resources for greater impact.

#### **State EE Association**

Non-profit, professional grassroots organization whose members typically include teachers, agency and nature center professionals, college students and community educators as well as organizational members such as colleges and universities, school districts, environmental groups, businesses and county, and state and federal agencies. This organization helps support and implement EE programming as well as providing members with networking opportunities, professional development and communication about EE concerns.

#### **State EE Association Office**

Office space and staff used exclusively by the state EE association to work towards providing services to EE professional and implementing the organization's strategic plan.

#### **Computerized Networking System for EE Materials and Services**

Online computer website that provides educators and EE leaders with access to EE resources, events, funding opportunities and other helpful information.

#### **Comprehensive On-line Database of State EE Practitioners and Resources**

Computerized database containing a comprehensive listing of EE resources available and EE practitioners within the state that is available to the general public.

#### **EE Resource Guide (s)**

EE resource guides are paper copy documents that feature state EE resources ranging from EE/nature centers and park interpretive facilitates, to environmental related

associations and organizations and corporate programs and funders. EE resource guides are typically created by state education agencies with EE offices and state EE associations.

#### **State-wide EE Newsletter**

Publication which highlights EE at the state-level, including: EE organizational activities, news about EE initiatives and funding, and listings of events and resources. State EE associations, agencies, interagency collaborative efforts, and private for profit organizations may all distribute statewide EE newsletters.

### **III. Funding Components**

#### **Funding Sources for EE**

Sources of funding to support the state level EE program infrastructure and specific programs, such as an EE grants program. Can be provided by a variety of means such as general revenue, license plate fees, resource user fees, polluter fines, taxes, lotteries and private donations and grants.

#### **State Supported EE Grants Program**

Grants program that uses state and/or private sector funds to increase EE programming at the state and local level. EE grants programs are typically overseen by state offices for EE, state EE Boards or Advisory Councils and are accessible to both formal and nonformal education entities for enhancing or creating state and locally based EE projects.

#### **EE Trust Fund**

EE Trust Fund for raising and supporting EE programs with both public and private dollars for raising and supporting EE programs with both public and private dollars Mechanism for generating and disbursing financial resources for EE. Trust funds are a permanent fund enabling EE leaders to collect and spend both private (grants and donations) and/or government dollars. Interest dollars can be earned on unspent funds.

The National Environmental Education Advancement Project (NEEAP), located at the University of Wisconsin-Stevens Point, supports the development and expansion of quality environmental education (EE) programs through a variety of state and local capacity building efforts. Many NEEAP efforts encourage the development and implementation of Comprehensive Environmental Education Programs at the state and local levels. NEEAP is a member of the Environmental Education and Training Partnership (EETAP).

## **Appendix B**

**Insert hard copy of:**

**NAAEE Guidelines for Excellence**

**OR**

**Go to**

**<http://naaee.org/npeee/materials.php>**

**For the complete NAAEE Guidelines for Excellence**

## **Appendix C**

## KCEEN Environmental Education Funding Sources

The Kansas City Environmental Education Network (KCEEN) Funding Workgroup created this spreadsheet in an effort to increase awareness of funding sources for environmental education. The sources have been divided into six categories for reference: (1) Federal, (2) State, (3) Municipal/County, (4) Corporate, (5) Non-profit, (6) In-school/In-kind Opportunities.

### Helpful Tips and Resources to consider when applying for funding:

- ***Common Grant Terms***

501(c)(3): The section of the tax code that defines nonprofit, charitable, tax-exempt organizations.

In-Kind Contribution: A non-cash contribution to a project. Often used to refer to the internal contribution made to the project by the grant applicant. Different funding agencies may have various requirements for how the in-kind contributions are measured and monitored.

Matching Funds: Funds that must be allocated for the proposed project by the applicant, matching the funding provided by a grantmaker. Requirements for matching funds will vary in their amounts and percentages depending upon the funding agency.

Check out [www.binfordgroup.com/teaching/GrantWriting/commonterms.html](http://www.binfordgroup.com/teaching/GrantWriting/commonterms.html) for more terms.

- ***Show Me the Money: Tips and Resources for Successful Grant Writing***

Many educators have found that outside funding, in the form of grants, allows them to provide their students with educational experiences and materials their own districts can't afford. Learn how they get those grants -- and how you can get one too! Included: practical tips to help first-time grant writers get the grants they need.

Check out: [www.educationworld.com/a\\_curr/profdev039.shtml](http://www.educationworld.com/a_curr/profdev039.shtml)

- ***EPA Grant-Writing Tutorial***

This interactive software tool walks the user through the grant-writing process and helps them learn to write more competitive grants. The program includes: detailed information and tips on writing a grant proposal; how to complete a grant application package; examples of good, complete grant packages; references; a glossary of terms; resources and contacts; a mock grant-writing activity where the user is able to compare their results to a successful grant application.

Check out: [www.epa.gov/seahome/grants.html](http://www.epa.gov/seahome/grants.html)

- ***Grants.gov Offers One-Stop Service for Applying for Federal Grants***

The federal government has launched a single, comprehensive website that will contain information about finding and applying for all federal grant programs. The Web site, Grants.gov, makes it easier for organizations to learn about and apply for federal grants. The site provides information in a standardized format across agencies and includes a "Find Grant Opportunities" feature to help applicants find potential funding opportunities. The site also contains an "Apply for Grants" feature that greatly simplifies the application process by allowing applicants to download, complete and submit applications for specific grant opportunities from any federal grant-making agency.

Check out: [www.Grants.gov](http://www.Grants.gov)

- ***The School Funding Center: Helping Schools Find The Funds They Need***

The school funding center is dedicated to helping schools find every funding source available to them in the U.S. Our school grant database is the largest anywhere. It contains over 100,000 grants worth over \$6,000,000,000.

Check out: **[www.schoolfundingcenter.com](http://www.schoolfundingcenter.com)**

Kansas City Region Environmental Education 2004 Perspective

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
<b>Corporate</b>					
grant	Bayer Corporation	variable	Science	<a href="http://www.bayerus.com/about/community/com_fproposal.html">http://www.bayerus.com/about/community/com_fproposal.html</a>	<a href="http://www.bayerus.com/about/community/com_flow.html">http://www.bayerus.com/about/community/com_flow.html</a>
Description: The Bayer Corporation gives grants to programs that address science literacy or provide science oriented vocational education.					
grant	Ford Motor Company Conservation and Education Grants	variable	Environmental Education	<a href="http://www.ford.com/en/goodWorks/fundingAndGrants/conservationEnvironmental/default.htm">http://www.ford.com/en/goodWorks/fundingAndGrants/conservationEnvironmental/default.htm</a>	<a href="http://www.ford-environmentalgrants.com/main/fordmenu_english.html">http://www.ford-environmentalgrants.com/main/fordmenu_english.html</a>
Description: The Ford Motor Company Conservation & Environmental Grants program is one of the world's largest environmental and conservation grants efforts, offering a total grant money of \$1,240,000 in over 50 participating countries since the year 2000. The Grants program comes from the Henry Ford Conservation Awards, originated in Britain in 1983 with a vision to encourage a wide range of people to initiate or join programs that help their local environment, heritage, and natural resources. It provides support to organizations and individuals that focus on preservation of the natural environment and support conservation in a noteworthy manner.					
Grant	Home Depot	\$5000-\$25000	Environment	<a href="http://www.homedepotfoundation.org/">http://www.homedepotfoundation.org/</a>	<a href="http://www.homedepotfoundation.org/hfus/enus/apply.html">http://www.homedepotfoundation.org/hfus/enus/apply.html</a>
Description: Our future and the future of generations to come depend on the environmental choices we make today. At The Home Depot Foundation, we assist organizations that are directing efforts toward sustaining our natural resources. Specifically, the Foundation will consider requests for grants to: 1) conserve forestlands and/or promote responsible forestry management, 2) encourage green building and sustainable design in affordable housing, 3) identify and help alleviate the causes of lead poisoning in children in at-risk communities, and 4) promote community recycling and clean-up.					
Grant	Lowes Home Improvement	variable	Education	<a href="http://www.lowes.com/lkn?action=frameSet&amp;url=www.easy2.com/cm/lowe/foundation/intro.asp">http://www.lowes.com/lkn?action=frameSet&amp;url=www.easy2.com/cm/lowe/foundation/intro.asp</a>	<a href="http://www.lowes.com/lkn?action=frameSet&amp;url=www.easy2.com/cm/lowe/foundation/intro.asp">http://www.lowes.com/lkn?action=frameSet&amp;url=www.easy2.com/cm/lowe/foundation/intro.asp</a>
Description: Founded in 1957, the Lowe's Charitable and Educational Foundation has a long and proud history of contributing to grassroots community projects. The Foundation considers large-scale requests and in order to address issues of importance to local communities, looks for support by local store and district management when reviewing proposals. The Foundation provides funding only to 501(c)(3) organizations in cities where Lowe's operates. Its primary philanthropic focus areas are education and community improvement projects.					
grant	State Farm Good Neighbor Service Learning Award	\$1,000	Variable	<a href="http://www.ysa.org/Awards/overview_parent.cfm">http://www.ysa.org/Awards/overview_parent.cfm</a>	<a href="http://www.ysa.org/Awards/overview_parent.cfm">http://www.ysa.org/Awards/overview_parent.cfm</a>
Description: Now used in about a third of all schools in the U.S., service-learning links community service with academic study. The award is available to teachers/professors, youth (ages 5-25), and school-based service-learning coordinators to implement service-learning projects for National Youth Service Day (April 16-18, 2004).					

Kansas City Region Environmental Education 2004 Perspective

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
<b>Corporate</b>					
varies	Target Stores "Take Charge of Education"	variable	Education	<a href="http://target.com/common/page.jhtml?content=target_cg_take_charge_of_education">http://target.com/common/page.jhtml?content=target_cg_take_charge_of_education</a>	Not available online.
Description: Since it was introduced in 1997, Take Charge of Education has contributed more than \$100 million through fundraising dollars, grants, and scholarships. Take Charge of Education programs include: School Fundraising, which donates 1% of Target® Visa® and Target Guest Card® purchases made at Target and target.com, and 1/2% of Target Visa purchases made elsewhere, to the eligible K-12 school of the guest's choice; All-Around Scholarships for graduating high school seniors and college undergraduates; and Arts in Education grants, which bring students to the arts and arts to the schools.					
grant	Toshiba America Foundation	variable	Environmental Science	<a href="http://www.toshiba.com/taf/featured_grant.html">http://www.toshiba.com/taf/featured_grant.html</a>	<a href="http://www.toshiba.com/taf/apply.html">http://www.toshiba.com/taf/apply.html</a>
Description: The Toshiba America Foundation provides grants to K-12 teachers to contribute to quality science and mathematics education in the US. Larger grants are awarded for grades 7-12.					
grant	Toyota Time Math Grants	up to \$10,000	Math	<a href="http://www.nctm.org/about/toyota/index.asp">http://www.nctm.org/about/toyota/index.asp</a>	<a href="http://www.nctm.org/about/toyota/index.asp">http://www.nctm.org/about/toyota/index.asp</a>
Description: Funded by Toyota Motor Sales USA and National Council of Teachers of Mathematics, grants are available to K-12 public school teachers for innovative math projects focusing on individual students and classrooms.					
Materials	VIVA! Gardens for Schools	NA	Gardening	<a href="http://www.vivagarden.com/garden/donations.asp">http://www.vivagarden.com/garden/donations.asp</a>	<a href="http://www.vivagarden.com/garden/donations.asp">http://www.vivagarden.com/garden/donations.asp</a>
Description: VIVA! Garden in participation with The Home Depot will provide VIVA! Herb and VIVA! Veggie plants to participating schools as well as the VIVA! Garden Guide of planting and cultural tips to help teachers and students get their garden started.					
grant	Walmart Foundation Environmental Grants for Schools	variable	Environmental Education	<a href="http://www.walmartfoundation.org">www.walmartfoundation.org</a>	Not available online.
Description: Wal-Mart and SAM'S CLUB provides grants to local schools to support environmental projects and education in communities where our stores are located. This year alone, we will contribute more than \$1.7 million to local schools through our Environmental Grants.					

Kansas City Region Environmental Education 2004 Perspective

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
<b>Municipal/ County</b>					
varies	Local City/County Public Works, Environmental, Forestry, and Parks Departments	NA	Variable	Not applicable.	Not applicable.
Description: The Environmental, Forestry, or Parks Department at your city or county Public Works Department may have resources available to you for assistance with your environmental education efforts. They may arrange field trips, locate volunteer groups, donate plantings, provide technical assistance, arrange field trips to public works facilities or provide free promotional brochures, stickers, buttons, magnets or pens. Public education and outreach is part of their mission—they are anxious to assist their citizens. They would welcome your requests for assistance.					

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
<b>Federal</b>					
grant	2003-2004 Native Plant Conservation Initiative	\$5000-40,000	Native Plants	<a href="http://www.nfwf.org/programs/npci.htm">http://www.nfwf.org/programs/npci.htm</a>	<a href="http://www.nfwf.org/programs/npci.htm">http://www.nfwf.org/programs/npci.htm</a>
Description: The National Fish and Wildlife Foundation, in partnership with the Plant Conservation Alliance, is pleased to announce a Request for Proposals for the 2003-2004 Native Plant Conservation Initiative (NPCI). Through this initiative, grants of federal dollars will be provided to non-profit organizations and agencies at all levels of government <sup>o</sup> to promote the conservation of native plants. This Request for Proposals includes two separate grant cycles, with application dates in December 2003 and July 2004.					
grant	EPA Environmental Education Grants	variable	Variable	<a href="http://www.epa.gov/enviroed/grants.html">http://www.epa.gov/enviroed/grants.html</a>	<a href="http://www.epa.gov/enviroed/pdf/424_2004.pdf">http://www.epa.gov/enviroed/pdf/424_2004.pdf</a>
Description: The Grant Program sponsored by EPA's Office of Environmental Education supports environmental education projects that enhance the public's awareness, knowledge, and skills to make informed decisions that affect environmental quality. Since 1992, EPA has received between \$2 and \$3 million in grant funding per year and has awarded over 2,500 grants. Grants of \$25,000 or less in federal funds are awarded in EPA's ten regional offices, and grants over \$25,000 are awarded at EPA Headquarters in Washington, D.C.					
grant	Five Star Restoration Matching Grants	\$5000-\$25,000	Wetlands	<a href="http://www.nfwf.org/programs/5star-rfp.htm">http://www.nfwf.org/programs/5star-rfp.htm</a>	<a href="http://www.nfwf.org/programs/5star-rfp.htm">http://www.nfwf.org/programs/5star-rfp.htm</a>
Description: The National Association of Counties, the National Fish and Wildlife Foundation, and the Wildlife Habitat Council, in cooperation with the U.S. Environmental Protection Agency, the Community-Based Restoration Program within NOAA Fisheries, and other sponsors (e.g., Office of Surface Mining), are pleased to solicit applications for the Five-Star Restoration Matching Grants Program. The Five-Star Restoration Program provides modest financial assistance on a competitive basis to support community-based wetland, riparian, and coastal habitat restoration projects that build diverse partnerships and foster local natural resource stewardship through education, outreach and training activities.					

Kansas City Region Environmental Education 2004 Perspective

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
grant	Captain Planet Foundation	\$500	Environmental Education	<a href="http://www.captainplanetfdn.org/">http://www.captainplanetfdn.org/</a>	<a href="http://www.captainplanetfdn.org/appProcess.html">http://www.captainplanetfdn.org/appProcess.html</a>
<p>Description: The mission of the Captain Planet Foundation is to fund and support hands-on environmental projects for children and youths. Our objective is to encourage innovative programs that empower children and youth around the world to work individually and collectively to solve environmental problems in their neighborhoods and communities. Through environmental education, we believe that children can achieve a better understanding and appreciation for the world in which they live.</p>					
grant	Ewing Marion Kauffman Foundation	variable	education	<a href="http://www.emkf.org/pages/49.cfm">http://www.emkf.org/pages/49.cfm</a>	Not available online.
<p>Description: The Kauffman Foundation works in partnership with organizations that share our vision and passion for education and entrepreneurship. Our entrepreneurship efforts fund programs and activities nationally and within the Kansas City area. The majority of our education grants go to organizations within the Kansas City metropolitan area. In general, Kauffman Foundation grants are limited to programs and/or initiatives that have significant potential to demonstrate innovative service delivery, in support of education and entrepreneurship.</p>					

Kansas City Region Environmental Education 2004 Perspective

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
<b>Nonprofit</b>					
Materials	America the Beautiful Fund	NA	Seeds	<a href="http://www.america-the-beautiful.org">http://www.america-the-beautiful.org</a>	<a href="http://www.america-the-beautiful.org/FreeSeeds_order_form.htm">http://www.america-the-beautiful.org/FreeSeeds_order_form.htm</a>
Description: America the Beautiful provides seeds free-of-charge; schools pay only shipping and handling.					
grant	Core 4 Conservation Alliance	up to \$2500	Conservation	<a href="http://www.ctic.purdue.edu/Core4/Core4Main.html">http://www.ctic.purdue.edu/Core4/Core4Main.html</a>	<a href="http://www.ctic.purdue.edu/CTIC/GrantApplication.pdf">http://www.ctic.purdue.edu/CTIC/GrantApplication.pdf</a>
Description: Core 4 Conservation Alliances are public/private partnerships that promote and implement conservation at the local level. Ag producers or citizens provide the leadership and partners from government, academic institutions, associations and businesses provide support. These alliances help to create the local-level successes that advance the national Core 4 Conservation campaign to realize Better Soil and Cleaner Water for our environment, Greater Profits for agriculture and a Brighter Future for all of us.					
grant	Lorrie Otto Seeds for Education Fund	variable	Outdoor Classroom	<a href="http://www.for-wild.org/seedmony.htm">http://www.for-wild.org/seedmony.htm</a>	<a href="http://www.for-wild.org/download/sfeapp.pdf">http://www.for-wild.org/download/sfeapp.pdf</a>
Description: The Lorrie Otto Seeds for Education Grant Program gives small monetary grants to schools, nature centers, or other non-profit educational organizations for the purpose of establishing outdoor learning centers. The grant recipient learning centers are those which most successfully reflect the Wild Ones mission to educate and share information about the benefits of using native plants in our landscape and to promote biodiversity and environmentally sound practices. Only through this knowledge, can we appreciate humankind's proper place in the web of life.					
grant	National 4-H Council Community Tree Planting	\$200-\$1000	Tree Planting	<a href="http://www.fourthcouncil.edu/programs/">http://www.fourthcouncil.edu/programs/</a>	Not available online
Description: The National 4-H Council Community Tree Planting Grants of \$200 to \$1000 are available to be used in community tree planting and/or restoration projects.					
grant	National Fish and Wildlife Foundation General Matching Grants Program	\$10,000-\$150,000	Fish and Wildlife Conservation	<a href="http://www.nfwf.org/programs/guidelines.htm">http://www.nfwf.org/programs/guidelines.htm</a>	<a href="http://www.nfwf.org/programs/guidelines.htm">http://www.nfwf.org/programs/guidelines.htm</a>
Description: The National Fish and Wildlife Foundation fosters cooperative partnerships to conserve fish, wildlife, plants, and the habitats on which they depend. The Foundation works with its grantees and conservation partners to stimulate private, state, and local funding for conservation through matching grants.					
Materials	National Gardening Association Youth Garden Grants	NA	Gardening	<a href="http://www.kidsgardening.com">http://www.kidsgardening.com</a>	<a href="http://www.kidsgardening.com/grants.asp#ygg">http://www.kidsgardening.com/grants.asp#ygg</a>
Description: Each year, hundreds of schools and community organizations with child-centered outdoor garden programs receive seeds, tools, garden products, and educational resources generously donated by companies in the lawn and garden industry. Selection criteria include leadership; need; sustainability; community support; innovation; and educational, environmental and/or social programming. The annual application deadline is November 1.					

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
<b>Nonprofit</b>					
grant	National Wildlife Federation Species Recovery Fund	\$3,000-\$7,000	Species and Habitat Conservation	<a href="http://www.nwf.org/keepthewildalive/speciesrecoveryfund.cfm">http://www.nwf.org/keepthewildalive/speciesrecoveryfund.cfm</a>	<a href="http://www.nwf.org/keepthewildalive/speciesrecoveryfund.cfm">http://www.nwf.org/keepthewildalive/speciesrecoveryfund.cfm</a>
Description: The Species Recovery Fund invites applications from any organization, agency, tribe, university, or individual working to improve on-the-ground conditions for imperiled species. Preference will be given to local grassroots organizations. Key criteria are the degree to which the project will improve on-the-ground conditions of listed species and involve people who have not previously been involved with species and habitat conservation.					
grant	National Wildlife Federation Wildseed Fund Grant	\$250.00	Schoolyard Habitat	<a href="http://www.nwf.org/schoolyardhabitats/">http://www.nwf.org/schoolyardhabitats/</a>	<a href="http://www.nwf.org/schoolyardhabitats/create_acquire.cfm">http://www.nwf.org/schoolyardhabitats/create_acquire.cfm</a>
Description: The Wild Seed Fund program provides assistance to schools and educational organizations in getting their Schoolyard Habitats projects off the ground. In 2003-2004, we are able to offer fifty \$250.00 mini-grants to schools and educational organizations across the country					
grant	Youth Service America National Youth Service Day	\$500	Variable	<a href="http://www.ysa.org/awards">http://www.ysa.org/awards</a>	<a href="http://www.ysa.org/awards/award_grant.cfm">http://www.ysa.org/awards/award_grant.cfm</a>
Description: National Youth Service Day, a program of Youth Service America, mobilizes youth as leaders to identify and address the needs of their communities through service and service-learning; support youth on a lifelong path of service and civic engagement; and educate the public, the media, and policymakers about the contributions of young people as community leaders. Grants are available to young people (ages 5-25) and organizations to implement service projects for National Youth Service Day (April 16-18, 2004).					

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
<b>State (KS)</b>					
grant	KDHE Kansas Clean Waters (Nonpoint Source Pollution)	up to \$5000	Water	<a href="http://www.kdhe.state.ks.us/nps/">http://www.kdhe.state.ks.us/nps/</a>	<a href="http://www.kdhe.state.ks.us/nps/General_Grant_Conditions.pdf">http://www.kdhe.state.ks.us/nps/General_Grant_Conditions.pdf</a>
Description: The KS Department of Health and Environment's Watershed Management Section implements Section 319 of the Clean Water Act, coordinating programs designed to eliminate or minimize pollution that does not come from the end of a pipe. The section develops and reviews strategies, management plans, local environmental protection plans, and county environmental codes intended to control nonpoint source pollution.					
grant	Outdoor Wildlife Learning Sites (OWLS)	\$2,000	Outdoor Classroom	<a href="http://www.kdwp.state.ks.us/education/OWLS/owl.html">http://www.kdwp.state.ks.us/education/OWLS/owl.html</a>	<a href="http://www.kdwp.state.ks.us/PDF/Brochures/Nongame/owlbro.pdf">http://www.kdwp.state.ks.us/PDF/Brochures/Nongame/owlbro.pdf</a>
Description: OWLS (Outdoor Wildlife Learning Sites) is a program sponsored by the Chickadee Checkoff of the Kansas Department of Wildlife and Parks. An OWLS is an outdoor environmental/wildlife laboratory, at or near a school, consisting of one or more native habitat features. It is designed to attract native wildlife and to facilitate multi-discipline learning opportunities for students. The program involves several agencies and organizations interested in conservation education. An OWLS grant provides \$2,000 for developing initial features.					

Type	Funding Source Name	Amount	Media	Website or Contact	Online Application
grant	MARC MO Solid Waste District Grants	variable	Solid Waste	<a href="http://www.marc.org/swmd/grants.htm">http://www.marc.org/swmd/grants.htm</a>	<a href="http://www.marc.org/swmd/grants.htm">http://www.marc.org/swmd/grants.htm</a>
<p>Description: The annual District Grant Program provides valuable assistance to local governments, private businesses and not-for-profit organizations in the implementation of a wide variety of waste reduction and recycling projects. Any municipality, county, public institution, not-for-profit organization, private business or individual currently operating in Cass, Clay, Jackson, Platte or Ray counties, or who will be operating in these areas, is eligible to apply. District grants are intended to provide initial "seed" capital for innovative projects. Funds may be used for various programs including education, waste reduction, re-use, recycling, composting, collection and processing, research and development, and market development for products made with diverted materials.</p>					
grant	MDC Show-Me Conservation Outdoor Classroom Grant	\$1,000	Outdoor Classroom	MO Dept of Conservation PO Box 180, Jefferson City, MO 65102-0180	Not available online
<p>Description: The MO Department of Conservation Show-Me Outdoor Conservation Classroom grant program is designed to distribute funds in amounts up to \$1000 to public, private or parochial schools interested in developing or enhancing an outdoor learning site, either on school grounds or at a nearby location.</p>					
loan	MDNR Low Cost Loans for Energy Efficiency	variable	Energy	<a href="http://www.dnr.mo.gov/energy/financial/loan.htm">http://www.dnr.mo.gov/energy/financial/loan.htm</a>	<a href="http://www.dnr.mo.gov/oac/pub1223.pdf">http://www.dnr.mo.gov/oac/pub1223.pdf</a>
<p>Description: City and county governments, and public schools, have an opportunity to reduce annual energy costs and save money through an energy efficiency loan program administered by the Energy Center. The loan program responds to one of the most important issues facing governments and schools - how to provide quality service in an era of tight budgets and limited resources. These loans help governments and schools implement projects and develop strategies to maximize energy efficiency. Government and school officials can save taxpayer money on energy costs and redirect these savings to fund essential services. Funds are available to any energy-consuming facility or building owned and operated by a local government. The loans are repaid from savings generated by energy efficient capital improvement projects. The loans have been ruled by the Attorney General's Office to be off-budget and are not considered general debt obligations. Loan rates are at a fixed interest rate below market value.</p>					
grant	MDNR Nonpoint Source Pollution Mini-grant	up to \$5000	Water	<a href="http://www.dnr.mo.gov/wpsc/wpcp/">http://www.dnr.mo.gov/wpsc/wpcp/</a>	<a href="http://www.dnr.state.mo.us/wpsc/wpcp/nps/nps_mini_appl.doc">www.dnr.state.mo.us/wpsc/wpcp/nps/nps_mini_appl.doc</a>
<p>Description: The Missouri Department of Natural Resources' Nonpoint Source Water Pollution Control Minigrant Program supports small projects that: (1.) Will create a citizenry that is accurately informed about the causes, extent and control of nonpoint source water pollution and water quality issues and (2.) Provide an opportunity for involved citizens to achieve environmental success through nonpoint source water pollution prevention or remediation. Funds for the program are provided by the U.S. Environmental Protection Agency (EPA) through the Missouri Department of Natural Resources.</p>					
grant	MO Department of Agriculture Building Our American Communities (BOAC) Program	\$500	4-H or FFA	<a href="http://www.mda.state.mo.us/financial/a1b.htm">http://www.mda.state.mo.us/financial/a1b.htm</a>	<a href="http://www.mda.state.mo.us/pdf/BOACGrant4H.pdf">http://www.mda.state.mo.us/pdf/BOACGrant4H.pdf</a> ; <a href="http://www.mda.state.mo.us/pdf/BOACGrantFFA.pdf">http://www.mda.state.mo.us/pdf/BOACGrantFFA.pdf</a>
<p>Description: BOAC Grant Program provides \$36,000 annually to Missouri 4-H clubs &amp; FFA chapters for projects aimed at developing &amp; advancing Missouri's rural communities.</p>					

## **Appendix D**

**Insert hard copy of:  
Report and recommendations  
of the Governor's Task Force  
on environmental education:  
Creating an Environmentally  
Literate Citizenry**

## **Glossary**

## **Glossary**

EPA	Environmental Protection Agency
KACEE	Kansas Association for Conservation and Environmental Education
KCEEN	Kansas City Environmental Education Network
MARC	Mid-America Regional Council
MEEA	Missouri Environmental Education Association
NAAEE	North American Association for Environmental Education
NCLB	No Child Left Behind
NEEAP	National Environmental Education Advancement Project
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization

## **Annotated Bibliography**

### Sources Consulted

Baker, M. "Update on the National Environmental Education Act of 1990" [<http://www.agiweb.org/gap/legis106.neca106.html>]. 7 July 2000.

Review of history of federal environmental legislation and action since National Environmental Education Act was passed in 1990.

Bowyer, J. L. "Fact vs. Perception." In "Evergreen Magazine" [<http://www.evergreenmagazine.com/news/forestfactsstories/Bowyer'sFactvsPerception.html>]. No date.

Discussion of misinformation and misperceptions about forestry.

Carnahan, Mel. "Executive Order No. 93-39." In "Governor's Executive Orders (1993)" [[http://www.sos.mo.gov/library/reference/orders/1993/eo93\\_039.asp](http://www.sos.mo.gov/library/reference/orders/1993/eo93_039.asp)]. 23 September 1993.

Missouri executive order establishing Governor's Task Force on Environmental Education.

Daudi, S. and J. Heimlich. "Environmental Education: As Defined By The Practitioners." In EETAP Resource Library [<http://eelink.net/eetap/info.15.pdf>]. April 1997.

A two-page summary of early and evolving definitions of environmental education.

Daudi, S. and J. Heimlich. "Environmental Education: Can it be Defined?" In EETAP Resource Library [<http://eelink.net/eetap/info14.pdf>]. March 1997.

A two-page summary discussing the challenges in defining environmental education. Information on resources to help define environmental education is also provided.

Environmental Education and Training Partnership. "Capacity Building" [[http://www.eetap.org/html/capacity\\_building.php](http://www.eetap.org/html/capacity_building.php)]. No date.

Site lists different activities to create comprehensive state and local level environmental education programs.

Environmental Education and Training Partnership. "Environmental Education Information Providers Directory" [<http://www.epa.gov/enviroed/pdf/infopro.pdf>]. August 1999.

Thorough listing and contact information for environmental education information providers. Includes matrix detailing what organizations offer what goods and services.

Environmental Education and Training Partnership. "What is Environmental Education?" [[http://www.eetap.org/html/environmental\\_education.php](http://www.eetap.org/html/environmental_education.php)]. No date.

Site defines environmental education and provides links to environmental education activities and how to achieve environmental education goals.

Environmental Education and Training Partnership. "What is Environmental Literacy?" [[http://www.eetap.org/html/environmental\\_literacy.php](http://www.eetap.org/html/environmental_literacy.php)]. No date.

Site defines environmental literacy and provides list of further resources.

Governor's Task Force on Environmental Education. Report and Recommendations of the Governor's Task Force on Environmental Education: Creating an Environmentally Literate Citizenry. Jefferson City, MO: State of Missouri, 1994.

Findings and suggested actions from task force created by Missouri governor Mel Carnahan. Available in Appendix E.

Hungerford, H., W. Bluhm, T. Volk, and J. Ramsey. Essential readings in environmental education Champaign, Ill.: Stipes, 2001.

A new edition of classic readings on the history, goals and evolution of environmental education.

Hungerford, H., R. Peyton, and R. Wilke. "Goals for curriculum development in environmental education." The Journal of Environmental Education 11(3) (1980): 42-47.

Highlights the framework developed to guide the development of environmental education curricula in a manner that is consistent with the guiding principles established at Tbilisi.

Kansas Association for Conservation and Environmental Education. "Environmental Education Standards for Kansas"  
[<http://www.ksde.org/outcomes/eestandards.pdf>]. 1999.

Standards and benchmarks for Kansas students broken down by grade level.

Kansas Association for Conservation and Environmental Education. "Home page"  
[<http://www.kacee.org>]. 2000.

Organization home page includes links to workshops, events, history, strategic plan and more.

Kansas State Department of Education. "Kansas Professional Development Program Guidelines" [<http://www.ksde.org/outcomes/itv/professionaldevguidelines.pdf>]. No date.

Overview and link to professional development program details for Kansas educators.

Mid-America Regional Council. "Environmental Education Resource Guide"  
[<http://www.marc.org/eeresourceguide.pdf>]. 2003.

Booklet lists details and contact information for area organizations that offer environmental education materials, events or services.

Mid-America Regional Council. "Metro Outlook: Measuring the Progress of Metropolitan Kansas City" [<http://www.marc.org/metro%20outlook.pdf>]. August 2001.

Survey of Kansas City area residents. Includes quality of life questions that address environmental concerns.

Missouri Department of Elementary and Secondary Education. "Questions & Answers about No Child Left Behind – And What It Means for Missouri"  
[<http://dese.mo.gov/divimprove/nclb/QandA.html>]. 2004.

Frequently asked questions about No Child Left Behind law as it specifically pertains to Missouri educators.

Missouri Department of Elementary and Secondary Education Division of Teacher Quality and Urban Education. "Missouri Professional Development Guidelines for Student Success" [<http://www.morpd.org/pdf/Index.pdf>]. 2001.

Introduction and table of contents for State of Missouri's professional development rules for educators. Includes information on roles of teachers, administrators and school boards, as well as implementation and evaluation information. Guidebook is available by chapter at <http://www.morpd.org/> by clicking on PD Guidelines link.

National Association of Conservation Districts. "Environmental Education at a Glance." League City, TX. 1998.

This booklet introduces environmental education in an easy to understand manner for educators, school administrators, education and environmental organization personnel. Summarizes the history and current status of environmental education.

National Environmental Education Advancement Project. "Components of State-level Comprehensive Environmental Education Programs: Definitions of components" [<http://www.uwsp.edu/cnr/neeap/research/StatusofEE/componentdef98.htm>]. 1998.

Definitions of the components commonly found in comprehensive environmental education programs.

National Environmental Education Advancement Project. "Comprehensive EE programs" [<http://www.uwsp.edu/cnr/neeap/research/ComprehensiveEE.htm>]. 1998.

A listing of structure, funding and program components commonly found in comprehensive environmental education programs.

National Environmental Education Advancement Project. "EE Criticisms and Responses – Point/Counterpoint." In "The Environmental Education Advocate" [[http://www.uwsp.edu/cnr/neap/publications/newsletter/1994\\_1998/f96re.htm](http://www.uwsp.edu/cnr/neap/publications/newsletter/1994_1998/f96re.htm)]. 1996.

Discussion of "unsettling trends" in environmental education.

National Environmental Education Advancement Project. "Home page"  
[<http://www.uwsp.edu/cnr/neap/index.htm>]. No date.

Organization home page includes newsletter, publications and program and resource information.

"National Environmental Education Act." In "Federal Wildlife Laws Handbook"  
[<http://ipl.unm.edu/cwl/fedbook/natened.html>]. No date.

Summary of act and its 1994 amendments.

National Environmental Education & Training Foundation. "NEETF/Roger Startch National Report Card" [<http://www.neetf.org/roper/roper.shtm>]. No date.

Results of surveys about environmental attitudes, knowledge and behavior. Site also includes links to other environmental report cards.

North American Association for Environmental Education. E Educator, Special Issue: Advancing Education Reform. Spring 1999.

A magazine-style publication that explores environmental education as it relates to education reform.

North American Association for Environmental Education. "Environmental Education Materials: Guidelines for Excellence" [<http://naaee.org/npeee/materials.php>]. 2000.

Outlines six key characteristics of high quality environmental education materials. Guidelines and indicators are also listed. Very useful.

North American Association for Environmental Education. Excellence in environmental education: Guidelines for learning (K-12). 2000.

A set of common voluntary guidelines for environmental education.

North American Association for Environmental Education. "Home page"  
[<http://www.naaee.org>]. No date.

Organization home page includes membership, conference and governmental affairs information as well as links to publications.

North American Association for Environmental Education. "Perspectives – Resources\_Timeline" [[http://eelink.net/perspectives-resources\\_timeline.html](http://eelink.net/perspectives-resources_timeline.html)]. No date.

Solid list of environmental education resources, including environmental justice and environmental literacy.

North American Association for Environmental Education. "Perspectives – Timeline: Events that have Influenced EE in the United States" [<http://eelink.net/perspectives-timeline.html>]. No date.

Bibliographic citations and resource links selected to enhance other eelink timeline materials. Includes chronological list of events that have influenced environmental education in the United States.

North American Association for Environmental Education. "The Environmental Education Collection A Review of Resources for Educators Volume I" Troy, OH: NAAEE, 1997.

Part of a series of resource guides that provide background information and reviews on widely available environmental education materials. Very useful.

North American Association for Environmental Education. "The Environmental Education Collection A Review of Resources for Educators Volume II" Troy, OH: NAAEE, 1997.

Part of a series of resource guides that provide background information and reviews on widely available environmental education materials. Very useful.

North American Association for Environmental Education. "The Environmental education Collection a Review of Resources for Educators Volume III" Troy, OH: NAAEE, 1997.

Part of a series of resource guides that provide background information and reviews on widely available environmental education materials. Very useful.

United Nations Educational, Scientific and Cultural Organization. "The Tbilisi Declaration: Final Report Intergovernmental Conference on Environmental Education Organized by UNESCO in cooperation with UNEP, Tbilisi, USSR, 14-26 October 1977." Connect 3, no. 1. 1978.

An early document further refining the Belgrade Charter in defining environmental education. Explicitly stated objectives of environmental education are agreed to be: awareness, knowledge, attitudes, skills and participation.

United Nations Environment Programme and United Nations Educational, Scientific and Cultural Organization. "The Belgrade Charter." Environmental Education Newsletter 1 (1976): 1-2.

One of the early documents used to begin defining the goals and objectives of environmental education.

U.S. Congress. "National Environmental Education Act"  
[<http://www.epa.gov/enviroed/pdf/nea.pdf>]. 16 November 1990.

Act requires the Environmental Protection Agency to provide national leadership to increase environmental literacy. The Office of Environmental Education was established to implement this program.

U.S. Department of Education. "No Child Left Behind"  
[<http://www.ed.gov/nclb/landing.jhtml?src=pb>]. No date.

Overview of No Child Left Behind initiative. Site includes information for parents, educators and states. A version of the site is also available in Spanish.

U.S. Department of Education. "No Child Left Behind: A Toolkit for Teachers"  
[<http://www.ed.gov/teachers/nclbguide/nclb-teachers-toolkit.pdf>]. 2003.

Document designed to provide teachers with information about No Child Left Behind law and how it affects educators.

U.S. Environmental Protection Agency. "Environmental Education Publications Produced with Support from EPA"  
[<http://www.epa.gov/enviroed/eepubsepa.htm>]. 2004.

Links to documents produced in partnership with EPA. List divided into subheadings: guidelines, resources, funding, education reform, and knowledge, status and history.

U.S. Environmental Protection Agency Region 10. "Submit Resource – Clearinghouse for Environmental Education Information"  
[<http://yosemite.epa.gov/r10/clearinghouse.nsf/frmhlp2?openform&basetarget=bottom>]. No date.

Submission information includes a detailed "What is the difference between Environmental Education and Environmental Information?" section.

Volk, T. and W. McBeth. Environmental Literacy in the United States: What Should Be...What Is...Getting from Here to There. Rock Spring, GA: NAAEE, 1998.

A report discussing the gap between the ideal and the current state of environmental literacy as revealed from a review of research papers. Includes recommendations for improving the level of environmental literacy.

Wackernagel, M., N. B. Shulz, D. Deumling, A. C. Linares, M. Jenkins, V. Kapos, C. Monfreda, J. Loh, N. Myers, R. Norgaard, and J. Randers. "Tracking the Ecological Overshoot of the Human Economy." In "Proceedings of the National Academy of Sciences" [<http://www.pnas.org/cgi/reprint/142033699v1.pdf>]. 9 July 2002.

Discussion on sustainability. Study on relationship between human demand on the environment, area required for production of food and goods, as well as capacity for absorption of wastes. Argues that human demand has exceeded biosphere's regenerative capacity since 1980s.

Williams, T. "Classroom Warfare." In Audobon Incite" [<http://magazine.audobon.org/incite/incite0009.html>]. 2000.

Discussion on debate over what topics should and should not be included in classroom environmental education curricula.