



U.S. DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE

There is one web of life and you are part of it.  
The web is in trouble.  
You can do something about it.

## THE ENVIRONMENTAL STRANDS

The strands are five "constants" that run through the total environment. They can be used individually, in relation to a specific subject or a particular environmental setting. They also have a sequence and interconnectiveness that may deepen their significance and utility. Taken in order, they represent a logical sequence of learning. The strands can be used singularly or in whatever combination suits the particular situation.

*Variety and Similarity*—the inventory stage of learning; cataloging the observable components.

*Patterns*—organizing the inventory into sets of things we can handle, either actually or intellectually.

*Interrelation and Interdependence*—the action stage of learning where the environmental components are studied in motion.

*Continuity and Change*—the extension in time of continuing processes and changing action.

*Adaptation and Evolution*—the stage involving continuous modification which may result in adjustment to prevailing conditions.

ENVIRONMAN, representing man's interrelationship with the total environment, is a recognized National Park Service symbol associated with its environmental education programs.

National Environmental Education Development (NEED) is a *curriculum-integrating process*. It is a set of complementary materials for use by kindergarten through twelfth grade students to develop environmental awareness, understanding, and values. Its basic information source is the regular school curriculum in its entirety—science, sociology and the arts.

The NEED materials furnish a new way of looking at all subjects. They encourage awareness of the interrelatedness of all sectors and systems of the environment, cultural as well as natural.

The five environmental strands are used as a framework for open-ended, process-oriented exploration of the environment in motion. They help a child to see, to feel, to know, and eventually to make decisions about his world.

NEED heightens personal awareness of the value judgments and environmental "trade-offs" we engage in every day of our lives.

NEED is like the string on a top—it sets the world in motion, puts a spin on the whole curriculum, and helps a child decide for himself where the process is taking him.

Third through sixth grade materials will be ready by fall 1972. They consist, for each grade, of a classroom book and an outdoor book. A teacher's guide for each grade provides back-up information, discussion guides,



and class activities for both in-school and out-of-school experiences.

NEED's goal is to help the individual child come to grips with his own world by arriving at his own personal environmental ethic. To be valid, such an ethic must be based on an understanding of earth's natural systems and the human systems man has devised and superimposed on nature. It also must grow out of a personal desire to participate in the total life processes of the planet.



The National Environmental Study Area (NESA) program is a cooperative venture of the bureaus within the Department of the Interior, the Department of Health, Education and Welfare's Office of Education, the National Education Association, and local educational communities, using materials developed by the National Park Service and the existing curricula of participating schools. NESAs provide a different kind of environmental learning experience that makes imaginative use of both the cultural and natural worlds, as they combine to make up the study areas. The areas, together with the study guide materials developed for the area and the regular school curriculum, help students relate to their world by:

1. Introducing them to their total environment—cultural and natural, past and present;
2. Developing in them an understanding of how man is using his resources;

3. Equipping them to be responsible and active members of the world they are shaping and being shaped by.

Some NESAs are primarily natural. They exemplify the elements and forces and balances out of which man himself is made and out of which he spins his cities and society and culture. Everything man is, or builds, is "nature" before it is anything else.

Some NESAs are primarily cultural. Their cultural significance often springs from certain natural factors . . . a rise of ground that formed a logical battlefield, or a desirable landing site along a river that grew into a gateway to some interior region. In such places, the environment and the individual become an indivisible whole—a reality whose meaning for each person lies in his own involvement.

Teacher workshops carried out in cooperation with the local school system introduce teachers to the NESA, provide resource material on the site, and suggest ways of adapting the area experience to the entire range of classroom curriculum.

The NESA Guide and related documents, available through the National Park Service or the National Education Association, supply information on resource facilities, instructions on the creation and use of study areas, and guidelines for conducting NESA workshops for teachers and area resource personnel. The teachers themselves decide how best to fit this flexible resource into their daily curriculum flow.

The purpose of the National Environmental Education Landmarks (NEEL) program is to assist local and State governments, citizen organizations, and private individuals to:

1. Identify and preserve nationally significant environmental study areas where students and other interested persons can participate in quality environmental education programs;
2. Encourage the articulation of an environmental ethic as the standard for personal and corporate conduct in the search for quality in daily life for an increasingly urban society;
3. Maintain a register of National Environmental Education Landmarks as a national inventory and a reference for groups and individuals interested in exemplary environmental education programs;
4. Provide technical assistance to groups and educational organizations interested in developing environmental education programs.

The areas involved in the NEEL program may be publicly or privately owned. They must possess natural or cultural resources of outstanding significance in illustrating the American environment as it is affected by and as it affects modern man.

Potential landmarks are selected from the NESA catalog maintained by the Office of Education HEW. Those selected are given professional review by a National Environmental Education Landmark Advisory Committee representing the National Park Service and the Office of

Education. Those sites which meet the criteria are submitted to the Secretary of the Interior's Advisory Board on National Parks, Historic Sites, Buildings, and Monuments. The Advisory Board submits its recommendations to the Secretary of the Interior, who has final responsibility for designation of the National Landmarks.

Administrators of environmental education sites who are interested in the NESA or NEEL programs should apply for inclusion in the NESA Catalog by writing for the proper forms to the Office of Environmental Education, Department of Health, Education and Welfare, Washington, D.C. 20202, or to any National Park Service Regional office.



Of the millions of visitors who enjoy the National Parks every year, many are regular fans, others are first-timers. They are drawn to the parks for reasons as various as the visitors themselves—curiosity, the need for relaxation, recreation, education, even inspiration. Most of them want to learn more about the parks. Many need to be reminded of their responsibilities to the park (park protection) and to themselves (visitor safety). Thus, the need for interpretive services!

Interpretation in the United States National Parks began in 1920 at Yosemite with "nature guides" conducting walks and campfire programs. Around this traditional program core, interpretation through the years has grown in dimension and improved in performance. The inter-

preter's basic job has been supplemented in many effective ways; audio-visual programs, exhibits, audio-repeater stations, self-guiding trails and publications. The visitor may use these at his own time and pace.

The personal dimension in interpretation enters at the museum in the form of talks, at the campfire in the form of entertaining and informative programs, along the trails in the person-to-person exchange of question and answer. Such personal contact can heighten the whole park experience, breathing life into the past, illuminating the present, and binding the whole into a new respect for land, air, water, and all the life forms that make up the biosphere of earth.

No longer are parks presented as isolated islands of natural or historic wonders. Instead they are described as they are—parts of, and wholly dependent on, the total world environment, both natural and cultural. Interpretive programs offer the visitor insights into man's use and abuse of the environment, past and present. Such programs are available to persons of all ages. The variety of park areas provides sites for investigating man's many roles—as explorer, inventor, settler, exploiter and conservator—all proper subjects for park interpretation.

Such programs not only enhance understanding and appreciation of the particular park, but they add to interpretation a whole new dimension—that of "context." By presenting the park in relation to the total world environment of which it is a part, such interpretation helps strengthen the survival chances of parks everywhere.



For information  
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write:

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*NATIONAL CAPITAL PARKS*

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