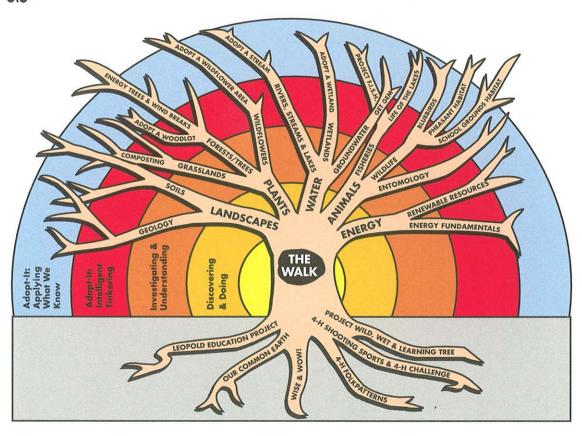


Teaching Resources in Environmental Education 4-H Natural Resources & Environmental Education Curriculum



The "TREE"—Teaching Resources for Environmental Education in Michigan's 4-H Natural Resources and Environmental Education Program*

About this publication

This publication is the core, or "heartwood," for youth and their mentors interested in outdoor and environmental stewardship education. In addition, youth can move through many projects aimed at building complex skills as they progress. For example, activities in this guide "The Walk" are at the core of the 4-H (NREE) experience—a starting point for exploration.

Once a youth has an exploratory experience through a Discovery Walk, or other opportunity, there is a branching set of experiences that youth may choose to explore and learn about, with each branch progressing to higher and higher levels of learning:

The Roots:

These existing programs and projects are designed mainly as building environmental awareness, basic ecology knowledge, or outdoor skills.

Discovering and Doing:

These projects build overall basic environmental awareness and understanding of science and provide very active learning experiences which are important for younger youth (ages 8-13) or for youth with limited previous experience in environmental stewardship.

Investigating and Understanding:

These projects allow youth more topical specialization in learning and development of specific environmental science knowledge of concepts and investigation skills.

Adopt-It: Intelligent Tinkering:

One of the best ways to know if one understands a complex ecological system is to conduct carefully planned projects and observe outcomes. These projects are real-life, on-the-land stewardship projects.

Adopt-It: Applying What We Know:

These advanced learning experiences focus on understanding complex environmental issues, analyzing them, and taking positive, constructive and informed action.

^{*}The design for the TREE shown above, was developed by Bud Schulz and David Schulz.

About this Guide: A Pathway to Success in Mentoring Youth in the Outdoors

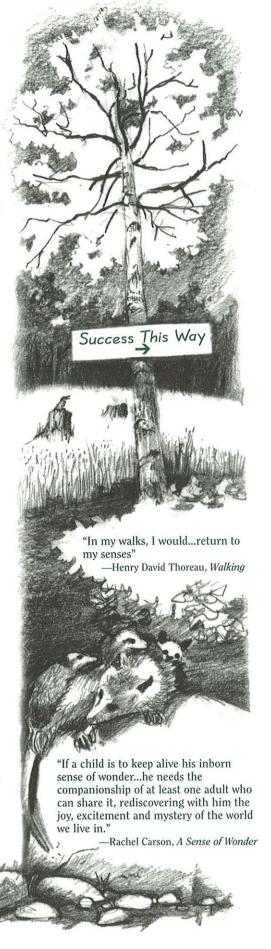
This guide is for any adult or teen interested in sharing the wonders of our natural heritage and natural resources, outdoor recreation, or environmental science and stewardship with youth, especially those youth ages 8–13. Ideas in this guide will also work well with older youth, and even adults—especially those who have had little opportunity to be in and enjoy the outdoors. In this guide, we outline a "Pathway to Success" in starting a mentoring program which provides long-term, club based learning activities for youth. We hope that as you use this guide, you choose to affiliate your youth outdoor and environmental stewardship learning program with the Michigan 4-H Natural Resources/ Environmental Education program! More about that, later...

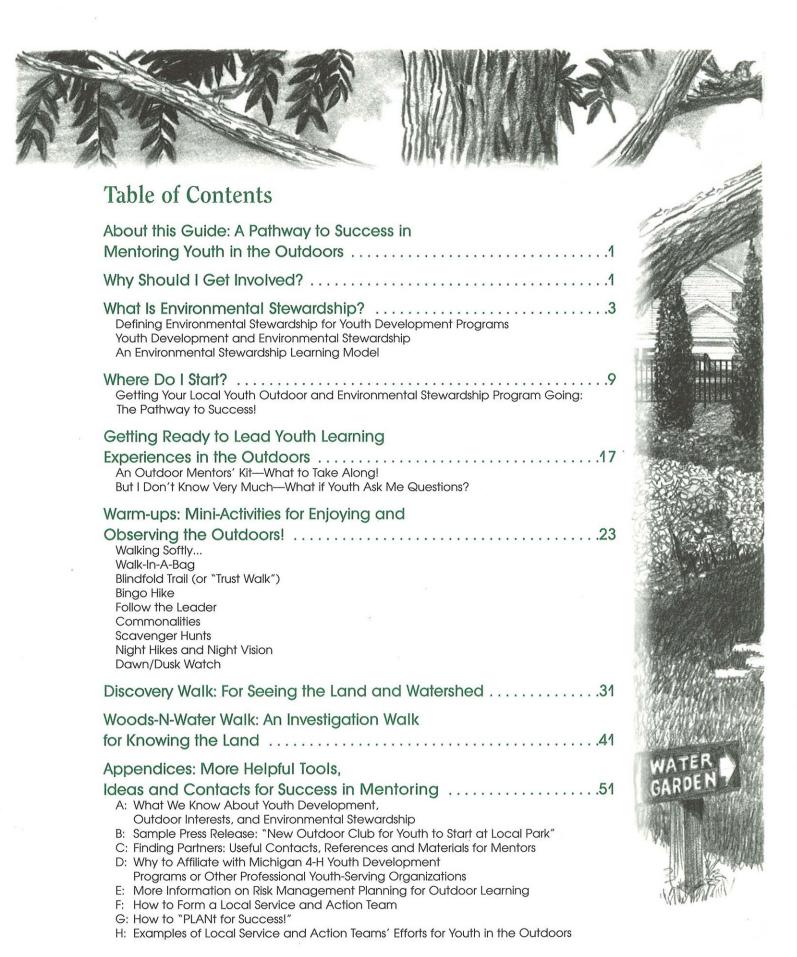
No matter the area of interest of a volunteer or other educator, this guide is designed to share the starting steps on a "Pathway to Success." One of the early steps in the pathway to a successful program for youth is "The Discovery Walk." This is a learning activity designed to get your group started with simple discovery walks which can be led in any environment—rural, suburban, urban—in any season. This guide also has many other learning activities and tips for introducing parents, teachers, youth organization leaders, and teen leaders to how to plan a variety of learning experiences. These could include classroom or club experiences, field trips, visits by resource people, community events, or community service projects with environmental themes.

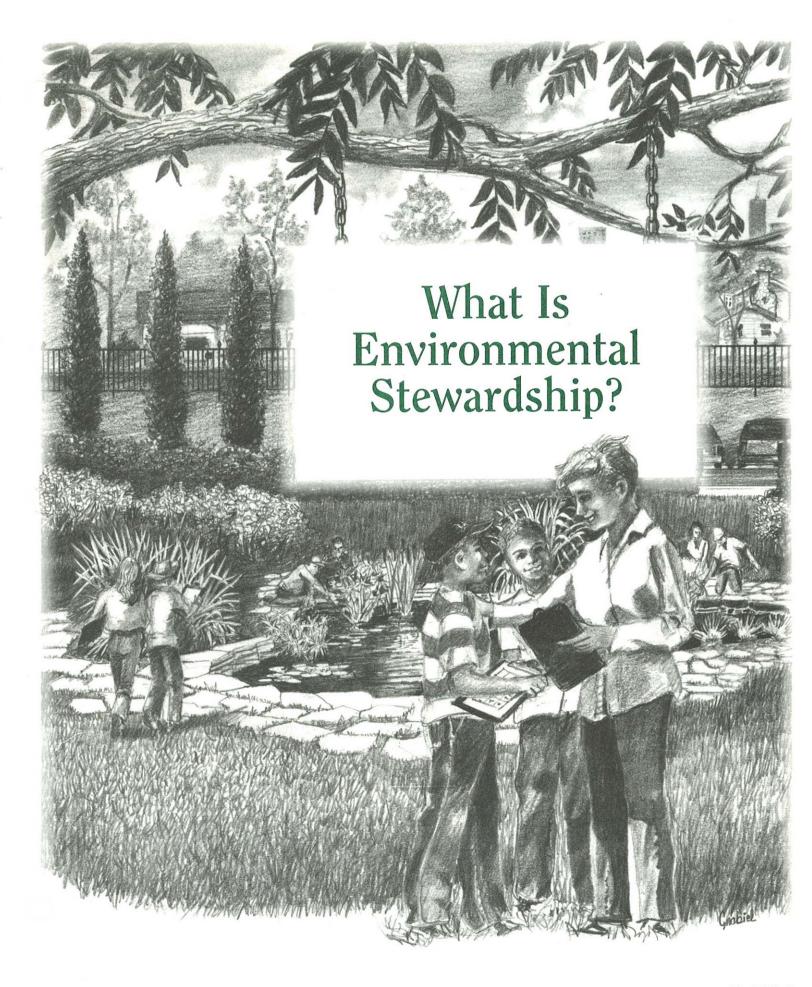
Why Should I Get Involved?

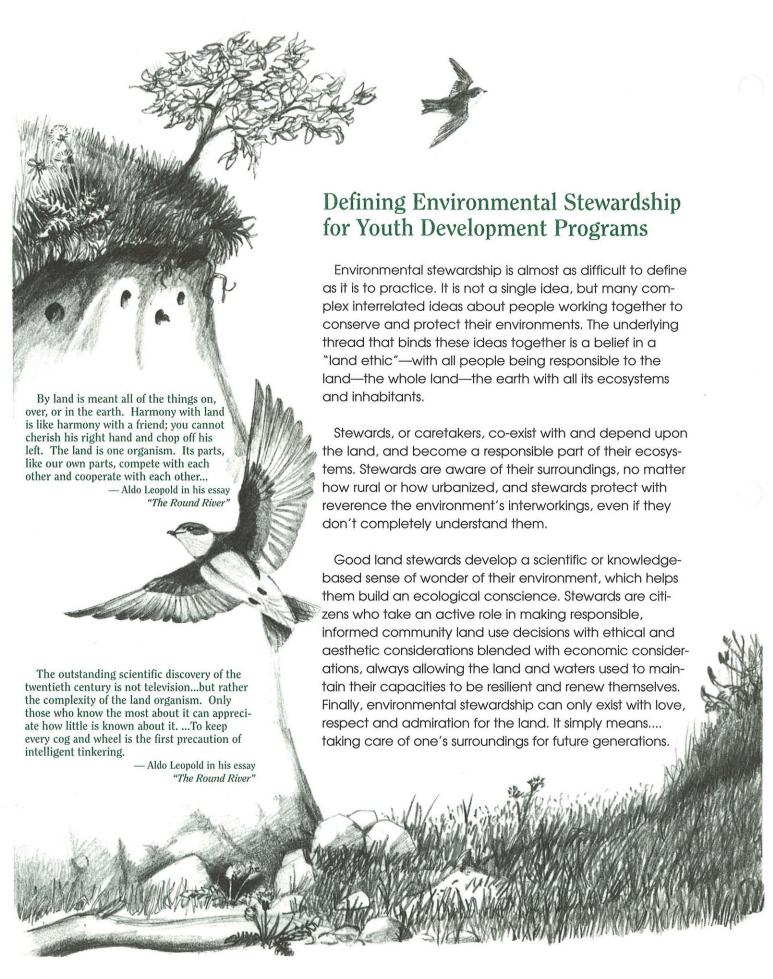
All young people have an interest in their environment. Youth may have interests ranging from rocks and minerals ("stone-picking" as some might say), animals, insects, collecting natural treasures such as feathers, wildflowers, pine cones, and other outdoor souvenirs, and even just getting outdoors and getting dirty! A lucky few youth find adults to help guide their discoveries and to support their interests...some do not, and develop fears or avoid outdoor settings in even urban or suburban areas.

Above and beyond all, making a commitment to take youth outdoors, no matter the environment where you live, and to explore, learn, discover and care requires a long-term vision. That's why this book is written for the mentor—an adult or older teen who chooses to spend indepth time, over a long time span, guiding a young person's development of lifelong observation skills, personal interests, and stewardship for their local communities.





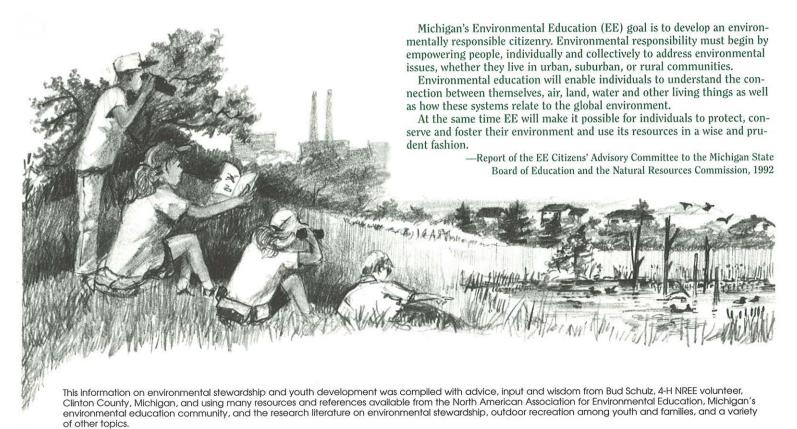




What's unique about this description of stewardship is that it implies more than just an awareness or knowledge of field natural history or ecology! It means more than just knowing about environmental science! It means developing a personal connection (through direct experience and service projects) with one's environments, no matter whether urban, suburban or rural. Stewardship might develop because of a tie to local natural resources and to mentors who share recreation interests with

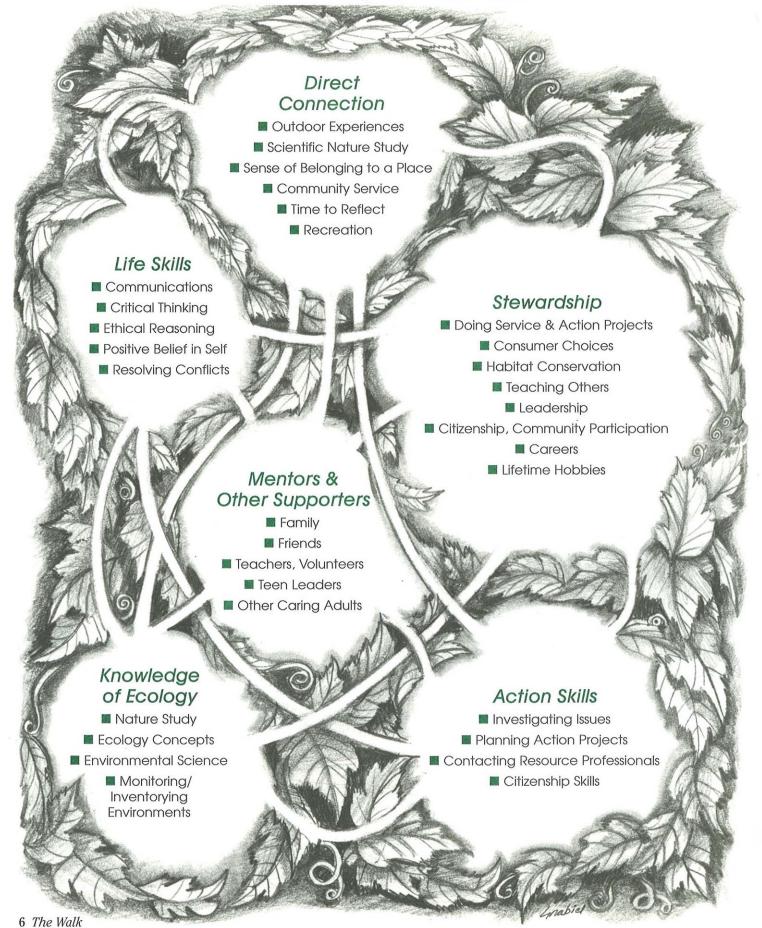
youth, such as hiking, fishing, or shooting. We also know that family and/or long-term connections with mentors help to cement that long-term commitment and action we call stewardship. Although researchers don't fully understand all of the experiences which truly lead to stewardship, enough evidence exists to say that a wealth of connections, in a network of caring adults and mentors, will provide a youth a chance to develop in his/her stewardship actions.

This is what this guide is for—to outline all of the important components of a program which will help set a course for youths' stewardship into the future. No other guide charts the way to direct, outdoor, learning experiences, using the program philosophies and approaches outlined here! So read on, and enjoy your journey with youth!



If you would like additional information about a national curriculum framework for Environmental Stewardship, read this reference: Excellence in Environmental Education: Guidelines for Learning (K-12), (available from North American Association for Environmental Education, http://www.naaee.org). This national framework was developed mainly with teachers in mind, but it points the way to age-appropriate learning experiences for today's youth. In addition, see Appendix A for information about how communities can best structure programs and services to develop positive assets which enhance youth development.

The Outdoors, Mentors, Youth Development & Stewardship are Intertwined



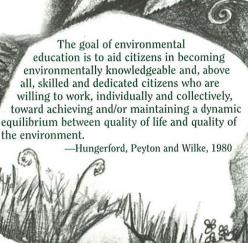
Youth Development and Environmental Stewardship

Does developing a sense of environmental stewardship in youth help in their overall development? Perhaps! Though there are many things that researchers don't know about how to help a person develop into a "responsible environmental steward," we do know a little. First, let's take a closer look at what it means to be a steward, or an "environmentally literate" person.



- are connected to their environments, through direct experiences which help them hold a sincere "sense of place"—or a sense of belonging to a place;
- have awareness and concern about environments;
- work to understand, from a scientific basis, both the environment as a system and the roles humans play in these systems;
- think about how the development of technology has the ability to degrade and/or protect the environment;
- use their awareness and knowledge to think about environmental issues and about consequences of their actions, individually and collectively, before and after actions are taken;
- work to prevent and resolve problems caused by either their own action or actions of others; and
- work to improve environments, for the benefits they provide for humans and for the environmental systems as a whole.

If we work to help young people grow to become environmentally literate "stewards," we are probably helping them in many ways. Being a steward takes personal skills—like critical and creative thinking, scientific understanding, and self-reflection about lifestyles and other choices. Becoming a steward means developing interpersonal skills, too—like skills in communication, group problem solving, ethical decision making, and conflict resolution. All of these skills will be needed in our society, in order that citizens are able to take an active role in resolving all sorts of challenges—environmental and otherwise. So, there's reason to believe that guiding youth on the path of environmental stewardship and literacy can give them benefits they need to cope as productive citizens of today and in the future!



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.

-Belgrade Charter, 1975

An Environmental Stewardship Learning Model

At the heart of positive, youth development environmental stewardship programs, is the philosophy that we meet youth "where they are"—by first providing them a setting for learning where they can focus their interests, and discuss their ideas (or even misconceptions or fears or hopes) they have to start with. Some youths may not have ever had this opportunity with regard to environments or with other areas of learning! As the youth leader helps guide the discovery learning of others, following this model (or design), can help enhance every learning session.

The youth leader's role:

DO

Facilitate self-directed discovery and awarenessbuilding by youth; provide a developmentally appropriate learning activity which is a common experience for all participants. General environmental stewardship objectives are to help youth to:

> Experience, discover Investigate Plan, implement

Take action



Provide learning opportunities to stimulate thinking and personal growth in youth; ask questions, stimulate discussion, look things up with youth, involve everyone, and generate data for further processing. General environmental stewardship objectives are to help youth to:

Categorize, compare, contrast

Count, measure

Analyze, evaluate

Process information or data

Discuss

Conclude

Generalize

APPLY/SHARE

Guide participants to broader perspectives and applications for what they have learned; help youth build personal meaning for what they have observed, reflected upon, and learned; help youth make personal and group contributions to applying their learning in service and action projects which make a real difference in communities; have youth consider how their actions are connected to other tasks/events/activities/ projects in the community. General environmental stewardship objectives are to help youth to:

Apply information to new situations
Teach, train and mentor others

Publicize, display findings

Anticipate or predict problems

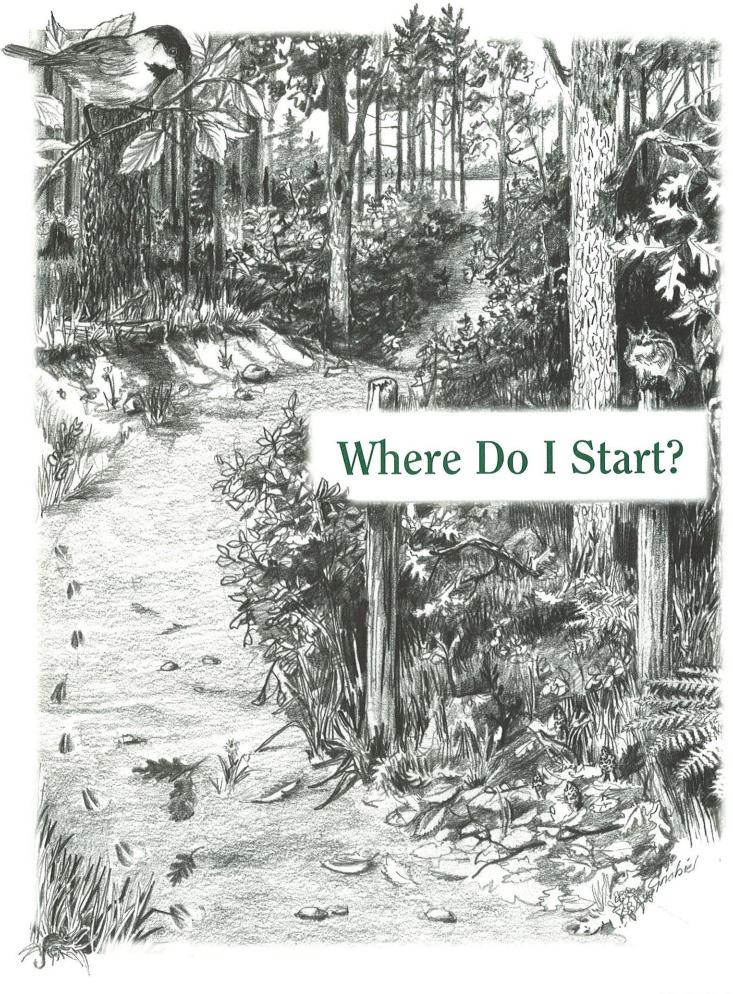
Solve a new problem

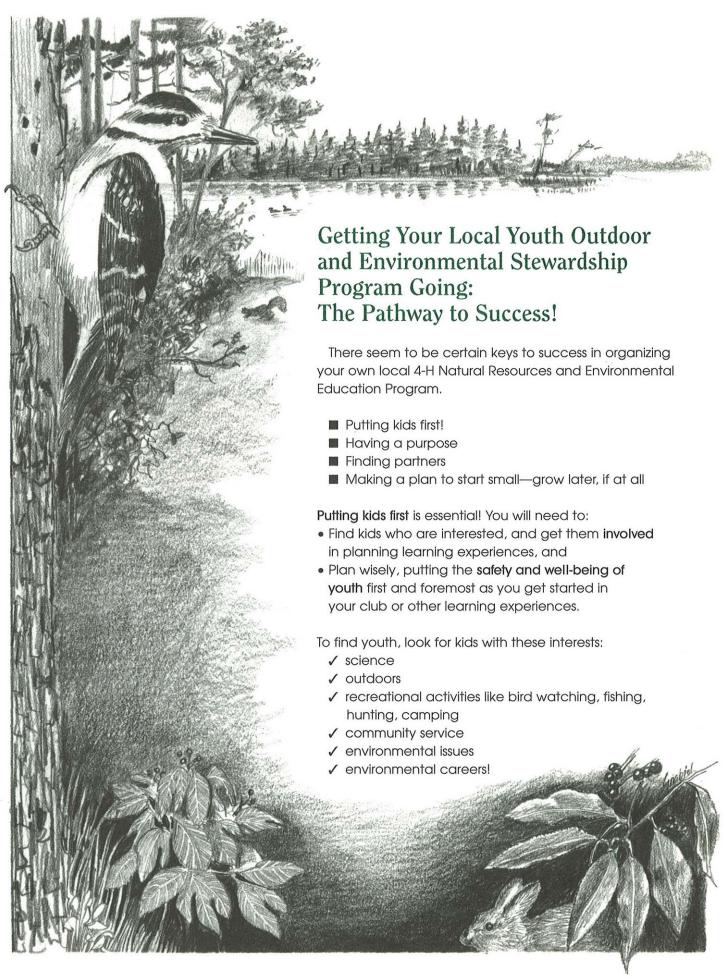
Take responsible, informed action as a citizen

Make lifestyle or lifelong learning decisions

Plan for more learning in the short- and long-term









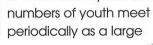
Consider connecting your local program to these types of efforts:

- schools
- after-school enrichment programs
- summer youth programs
- local parks or as part of camp programs
- nature center programs
- outdoor (or "sportsmen's") clubs for families, shooters, anglers
- local recreation programs (neighborhoods, etc.)
- local environmental organizations

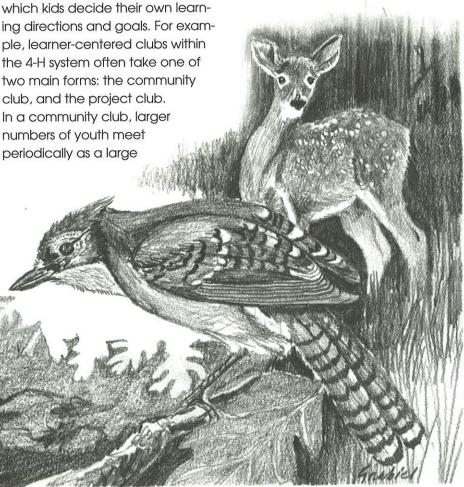
Having only 6 kids or one classroom involved at first is great, and may be all you need to form the nucleus of an active environmental stewardship or outdoor youth club! You might try putting a brief news article in local (weekly) papers to announce your first meeting. (See Appendix B.) Try to

involve at least 3 families, in order to get parents in on the fun from the start. Mixed ages are fine have the older teens build their enthusiasm by teaching the younger youth.

Remember, clubs can take many shapes and forms. The best clubs (for youth development and for organizers who wish to sustain a club once started) are those in which kids decide their own learning directions and goals. For example, learner-centered clubs within the 4-H system often take one of two main forms: the community



group, but each youth and small groups of youth take on a variety of very different types of projects (e.g., animal science, personal appearance, and environmental stewardship). In a project club, however, smaller numbers of youth specialize within one main project area (e.g., environmental stewardship, or sportfishing, or shooting sports/wildlife conservation).

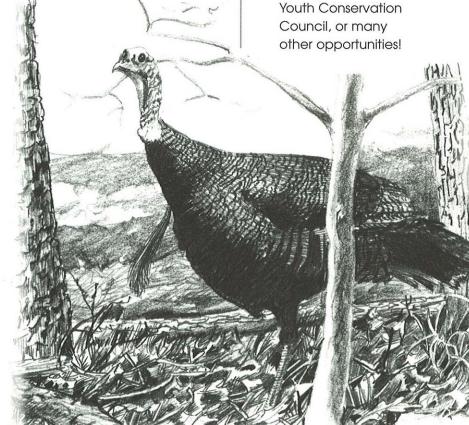


To capture and keep the interest of schools and teachers, several very important points need to be weighed. First and foremost, schools are responsible for the overall education of our youth in particular subject and skill areas. Schools and teachers, today, are under a great deal of pressure from society to show that their approaches are working; so, student achievement scores on standardized tests are very important. It's even said that a community's economic viability sometimes rests on the quality (and scores) of local schools. Understanding how environmental stewardship can fit nicely with what schools and teachers are trying to achieve for our youth is vital to developing strong programs in schools. (For more information on connecting environmental stewardship and outdoor education to Michigan education systems, see contacts listed in Appendix C.)

To sustain your program, once you start it, it's important to have teens stay involved once they've started their journey in learning about environmental stewardship. To capture and keep the interests of teens, consider these tactics:

- have meetings at times when teens can attend...(not at times when sports, work obligations or other major events get in the way)
- send a teen or two for specialized leadership experience and training—they'll come home ready to jump-start the involvement of other teens locally! For example, consider these options:
 - √ 4-H Great Lakes and Natural Resources Camp (ages 13-15)
 - ✓ MUCC Camp—for younger youths
 - ✓ Other youth leadership experiences, such as: Capitol Experience (learning about state policy making), Michigan 4-H Youth Conservation Council, or many

- build in competition—constructively. (Prepare for an event like the Envirothon, see Appedix C for contact information.)
- check into local schools' community service requirements for graduation, and offer teens exciting outdoor community service opportunities no other organization can offer!
- have teens work toward taking a special trip—to a park, on a fishing trip, with an outdoor guide, on an interstate or international exchange, etc.
- give teens a REAL say—in planning events and learning from the start.
- share responsibilities with teens especially getting them involved in serving as guides and mentors to younger youth.
- let youths decide the focus of their learning experiences and meetings. Let them run the meetings, with your guidance. A sample meeting (in an evening), might run only 90 minutes, and include:
- ✓ a short business meeting
- ✓ brief introduction of a topic or activity or guest resource person
- ✓ a hands-on, interactive learning experience (outdoors, if possible!)
- discussion of what to do next!



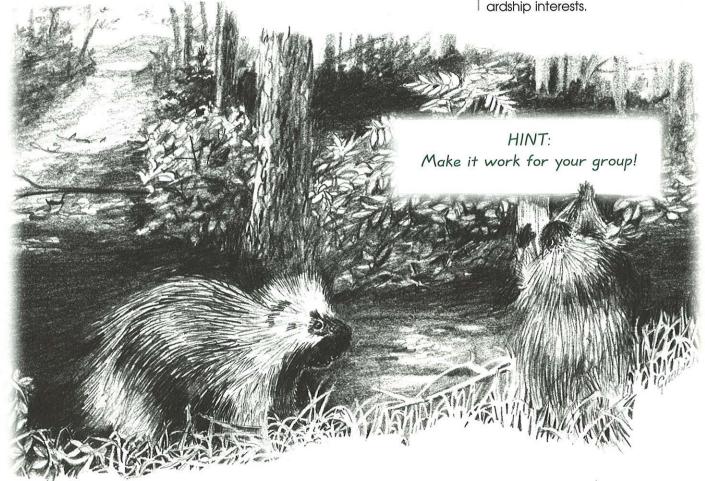
In order to put the safety and well-being of youth first and foremost during the learning, be sure to plan carefully for even the first gathering. Here is where the benefits of affiliating with an established youth-serving organization (such as county 4-H Youth Development Programs) are essential in today's world. (See Appendix D for reasons and benefits of affiliating with 4-H Youth Development Programs, for example.) Planning for the safety and well-being of youth involves these considerations:

- Which adults are working with youth, and how have they been selected and trained?
- Have you made appropriate plans for first aid, safety, and emergency assistance at your activities?

- Have you made plans to manage other potential risks (such as undue media exposure of youth, plans for severe weather, purchase of club or activity insurance, etc.)?
- Are the youth, their parents, and volunteers informed of what activities will occur? Are they prepared to make wise decisions about participating in or leading the activities?
- What records do you keep...of participants' arrival/departure, of parent/guardian contact information, of safety policies/procedures, or about incidents or events which occur during your meetings?
- Have you drawn upon the expertise of youth development professionals in planning your learning activities and events and in risk management planning?

For more information on risk management planning for outdoor activities, see Appendix E.

Next, have a purpose for your activities! The best way to get your youth started on a path of learning about local environments is to guide them on a Discovery Walk, or Investigation Walk. Exploring local environments, whether they are rural, urban or suburban, is a great way to connect youth to their outdoor interests, whatever they may be. Taking the time to carefully look at, think about and wonder about what's just outside the door can help a young person decide what they would like to know more about. Then, these interests—kiddirected—can lead to a day of further exploration, weeks or months of detailed study, and longer-term community service projects to carry out their own environmental stewardship interests.



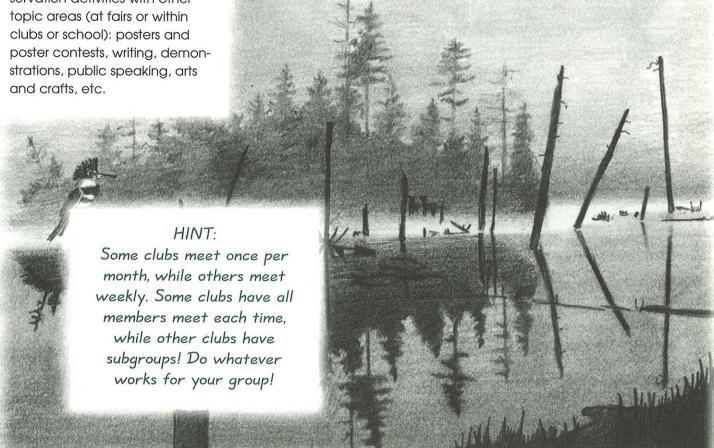
Find purpose or a focus through one of the following:

- a special place—where you return to do much of your environmental stewardship learning projects—someones' land, a neighborhood park, or an adopted area (read on...).
- recreation—having fun! Connect the learning experiences to a planned fishing outing, or other outdoor adventure!
- a service and action project—to study, "adopt" or improve a special local place such as a park or part of a watershed;
- preparing for an event—such as regional and state Envirothon competitions (designed especially for high schoolers—see Appendix C for contact information)—or for a special trip.
- finding ways to share youths' work at an event—such as the county fair, a science fair, an Earth Day or other local event.
- connect environmental or conservation activities with other topic areas (at fairs or within clubs or school): posters and strations, public speaking, arts

Third, find partners! Don't go it alone! There are many organizations and agencies which can help with your local youth environmental stewardship projects and activities. To consider these organizations and to contact them, see Appendix C to learn how to obtain the MUCC (Michigan United Conservation Clubs) Conservation Education Catalog and other useful references. To brainstorm how these groups and organizations could be involved and to start planning your local programs, at county or community levels, see Appendix F "How to Form a Local 'Service and Action' Team."

> "Passengers on the cosmic sea We know not whence nor whither, Tis happiness enough to be Complete with wind and weather." - Liberty Hyde Bailey, Wind and Weather

The best way for a county or local program to get organized is to begin to form a Service and Action Team. This team will help draw together local resource people and volunteers who can help get a youth environmental science and stewardship program started and maintain it to help it grow. Environmental education partners from schools, industries, agencies, organizations, local clubs, and community service groups can help in many ways to build a strong program. This Local Team then will serve as a network of leadership and a support team for the many mentors who work directly with youth in conducting environmental science learning and action projects. For more information on how to get started, see Appendix F, "How to Form a Local 'Service and Action' Team," read about successful programs in Appendix H, and have fun!



Finally, start small! If your work in environmental stewardship is only with a handful of youth, that's OK! It's most important that you share with those youth an in-depth and real environmental and outdoor experience. When there are too many youth involved, (such as a huge clinic or field day), you can only achieve awareness of outdoor environments.

With a handful of youth for each mentor, the magic of mentoring happens—youth develop a lifelong commitment to environmental stewardship. Allow those youth to focus their attentions on the subjects or service projects of interest. Don't get involved in too many different subject areas within environmental science or outdoor recreation too quickly!

Grow your program slowly, and add interest areas and more youth as the needs and interests arise. Soon, you'll have a network, even if only a small one, of local interest in fostering youth development through environmental stewardship and outdoor recreation.

Sample Yearly Calendar: Timeline for Success!

September

First meeting of interested adults, teen leaders and local youth development professionals (e.g., 4-H agent, recreation professionals, etc.)

- Brainstorm ideas for resource people and teaching/learning experiences (see Appendix F—"How to Form a Local 'Service and Action' Team")
- Consider how and whether to form a local Action Team
- Decide how to publicize first meeting for youth and parents
- Divide tasks, and decide how to check that tasks are carried out!

October

First youth club meeting—Make sure participants get acquainted and do a simple fun learning activity (see "Warm-Ups," page 23)

- Have kids suggest locations or topics they want to explore
- Discuss group procedures and processes (fill out group enrollment forms, permission forms, collect dues for activities and for group insurance, sign up other parents/guardians as helpers or enroll them formally as organization leaders, announce upcoming activities, training workshops, events, and meetings, etc.)

2nd club meeting—Do more warm-ups, and let kids research more information about your site

2nd or 3rd club meeting—Take a Discovery Walk (and start a field journal!)

3rd or 4th club meeting—Take an Investigation Walk (and discuss more ideas for learning)

5th club meeting—Determine an action for the year—let the kids plan actions they could take throughout the year. Would the club like to take a series of Discovery and Investigation Walks throughout the year on the same part of the site? Would they like to explore different areas within the site at each visit? How could they improve the site? What resource people could they invite in to help them explore the site? Could they plan a fun outing to celebrate the end of the year? How will they display what they have learned throughout the year (at a fair or other event)?

