WONDER

ACHIEVE

SERVE

EXPLORE

THINK

Meeting Standards Naturally

Welcome!

This CD-Rom features free activities that help teachers and other educators promote academic excellence and environmental literacy.

Please take a few minutes to explore this CD-ROM, learn about environmental literacy, and how it fits into today's K-12 curriculum.

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As Educators,

You are expected to meet your state's academic *standards*.

With *Meeting Standards Naturally*,

You will be able to help your students achieve your discipline's academic *standards*…

…while providing students with the knowledge and citizenship skills needed to participate effectively in environmental decision-making.

It wasn’t so long ago that teaching about the environment was thought of as the exclusive responsibility of science teachers…

…or something left to the annual field trip to the nature center, local farm, marsh, or park.

Now researchers and practitioners alike are discovering that the methods that make learning about the environment so memorable and effective can help promote overall academic excellence.

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What is Environmental Literacy?

Environmental literacy is more than mastering facts about birds and animals. It is more than celebrating Earth Day once a year.

Being environmentally literate means understanding the natural world in a social context. It means understanding how human decisions and actions impact environmental quality.

Environmental literacy means responsible and effective citizenship!

What's Your Role ?

More than anyone else, teachers know the importance of education in shaping a positive future for their students and society at large.

Increasingly, people are asked to grapple with decisions ranging from land-use zoning to consumer choices that can impact public health through air and water quality. These choices also pose consequences for ecosystems that support our well-being and quality of life.

To fully meet their responsibilities, schools need to prepare the next generation with the knowledge and skills to seek sound, balanced decisions that maintain public health and environmental quality.

In doing so, you will discover that what is needed to advance environmental literacy also complements the goals of education reform.

Fostering environmental literacy does not have to occur outdoors or even in a science classroom.

Most importantly, it can enhance rather than displace your curriculum.

The environment provides a great context for learning and developing skills that cross disciplines.

questioning

qdugtxcvkqp

problem solving

analysis

sensitivity

creativity

expression

critical thinking

By teaching about the mysteries and wonders of the environment, we capitalize on students' natural curiosity and motivation to learn.

National Guidelines for Excellence

Supporting education reform and advancing environmental literacy

The North American Association for Environmental Education (NAAEE) has published guidelines for developing materials and programs that are balanced, scientifically accurate, and pedagogically sound. These guidelines are correlated to national standards and can help you, as an educator, develop meaningful programs that integrate the core disciplines.

Access the guidelines on the web at http://naaee.org/npeee/

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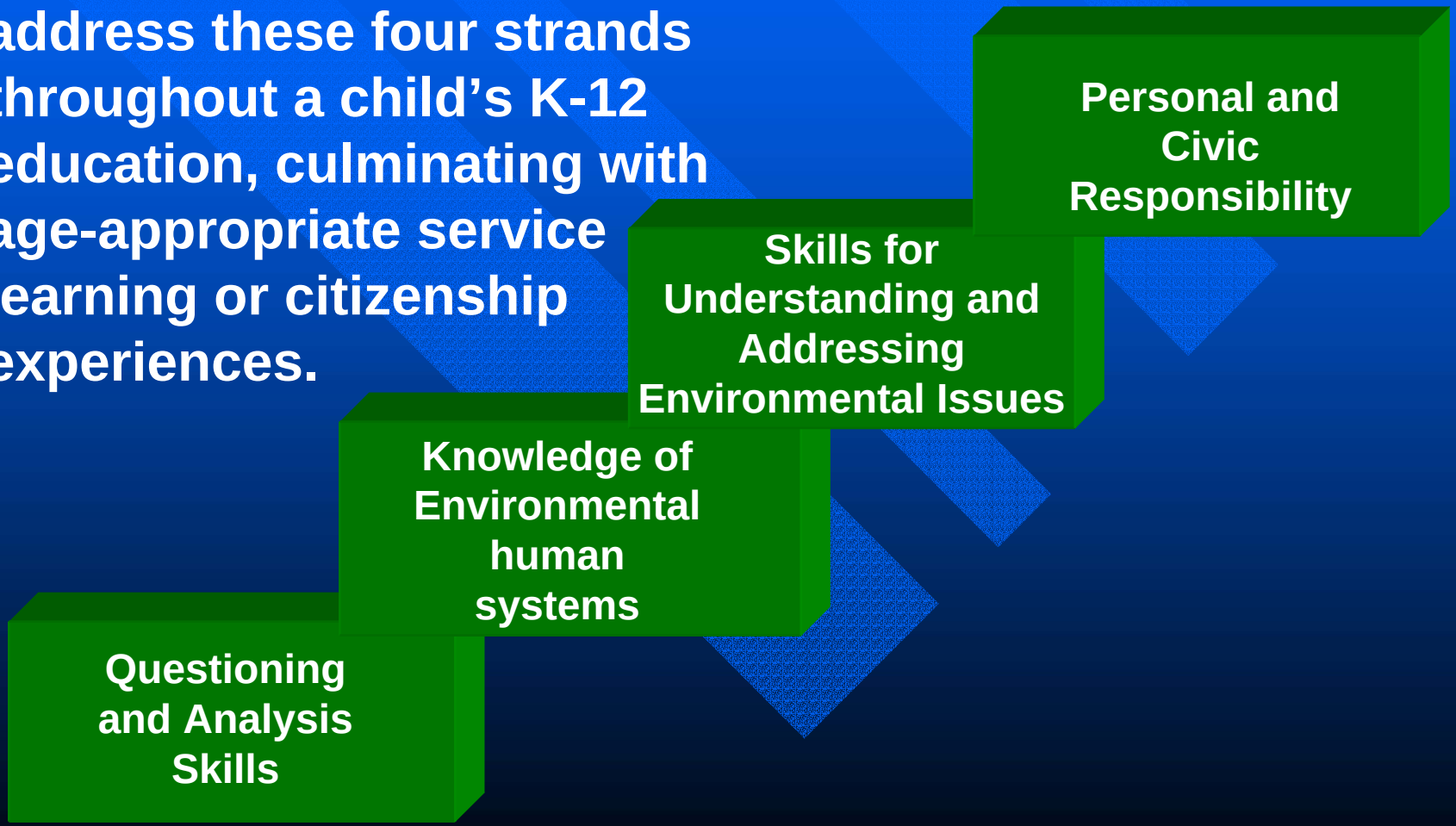
The Guidelines identify four strands to environmental literacy:

- Developing questioning, investigating and analyzing skills;
- Acquiring knowledge of environmental processes and human systems;
- Developing skills for understanding and addressing environmental issues;
- Practicing personal and civic responsibility for environmental decisions.

Each strand is correlated to the national education standards developed for core disciplines such as math, science, social studies,and language arts. This ensures that the guidelines are “in tune” with education reform efforts.

Ideally, schools should develop comprehensive programs to address these four strands throughout a child's K-12 education, culminating with age-appropriate service learning or citizenship experiences.



FREE Activities

For building environmental literacy and academic achievement

The matrices that follow provide sample activities that showcase how environmental literacy lessons can fit within and support specific grade level standards in core academic disciplines.

For Example…

In the activity, "The Power of Print," (Grades 3-5) students compare different sections of the newspaper and analyze some of the ways that ideas and opinions are expressed through word choice.

Students then research opposing sides of a local environmental issue and write sample articles using both objective and subjective points of view.

"Power of Print" is copied with permission from the American Forest Foundation, © 2001 *Project Learning Tree Environmental Education PreK-8 Activity Guide*. The complete PreK-8 Activity Guide and high school modules can be obtained by attending a PLT workshop. For more information visit the Project Learning Tree website at *www.plt.org*.

For Example…

By using "Power of Print", the following national standards are addressed:

Language Arts:

- Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation) media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.
- Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

For Example…

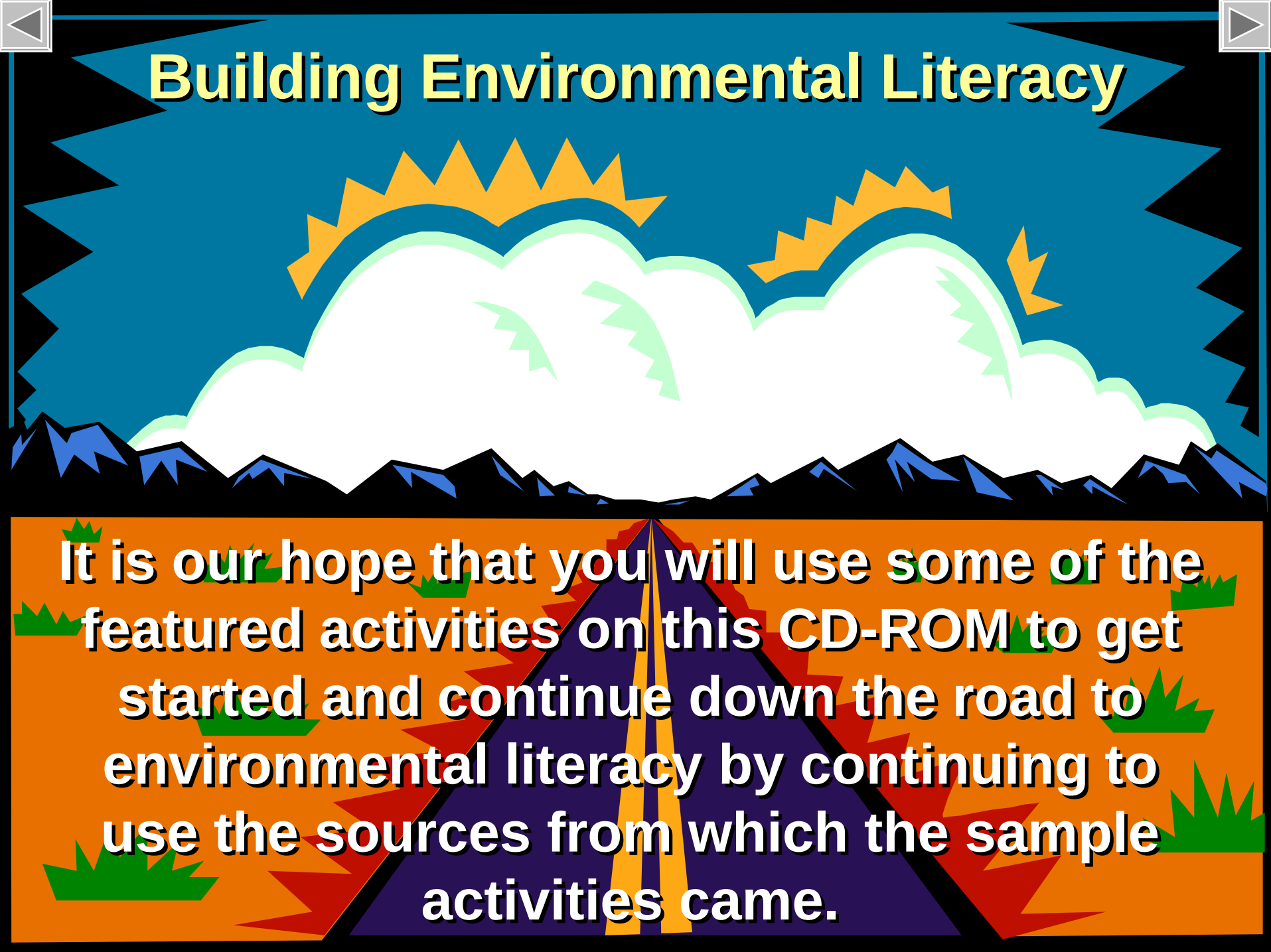
By using "Power of Print", the following national standards are addressed:

Social Studies:

- Students examine, interpret, and analyze physical and cultural patterns and their interactions, such as land use, settlement patterns, cultural transmission of customs and ideas, and ecosystems changes.
- Students locate, access, analyze, organize, and apply information about selected public issues – recognizing and explaining multiple points of view.

About two-thirds of the activities featured in this CD-ROM were taken from resources that have been reviewed using the NAAEE Guidelines for Excellence. You may read the review of those resources on-line. Each activity included with this CD-ROM contains a cover sheet that will direct you to the review (where applicable) as well as contact information for the publisher.

Building Environmental Literacy



It is our hope that you will use some of the featured activities on this CD-ROM to get started and continue down the road to environmental literacy by continuing to use the sources from which the sample activities came.

Science Activities

Environmental Literacy Strand	Pre K-2	3-5	6-8	9-12
Questioning & Analysis Skills	Sample 1			
Ecological Knowledge		Sample 2	Sample 4	
Skills for Understanding Issues		Sample 3		Sample 6
Citizenship/ Service			Sample 5	

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Social Studies Activities

Environmental Literacy Strand	Pre K-2	3-5	6-8	9-12
Questioning & Analysis Skills	Sample 1			
Ecological Knowledge		Sample 2	Sample 4	
Skills for Understanding Issues		Sample 3	Sample 5	
Citizenship/ Service			Sample 6	Sample 7

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Language Arts Activities

Environmental Literacy Strand	Pre K-2	3-5	6-8	9-12
Questioning & Analysis Skills	Sample 1			
Ecological Knowledge		Sample 2	Sample 4	
Skills for Understanding Issues		Sample 3	Sample 5	Sample 7
Citizenship/ Service			Sample 6	Sample 8

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Math Activities

Environmental Literacy Strand	Pre K-2	3-5	6-8	9-12
Questioning & Analysis Skills	Sample 1			
Ecological Knowledge		Sample 2	Sample 4	
Skills for Understanding Issues		Sample 3	Sample 5	Sample 7
Citizenship/ Service			Sample 6	Sample 8

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Fine Arts Activities

Environmental Literacy Strand	Pre K-2	3-5	6-8	9-12
Questioning & Analysis Skills	Sample 1			
Ecological Knowledge		Sample 2	Sample 4	
Skills for Understanding Issues		Sample 3	Sample 5	Sample 7
Citizenship/ Service			Sample 6	Sample 8

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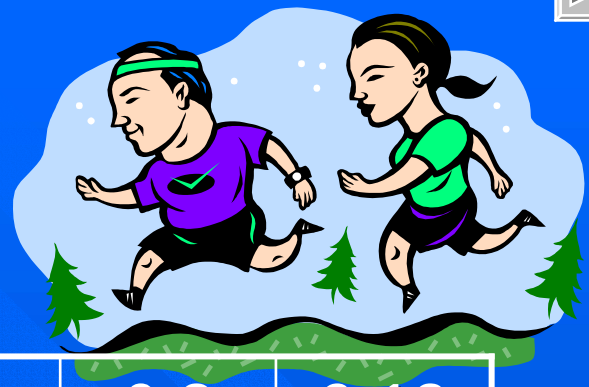
Health Activities



Environmental Literacy Strand	Pre K-2	3-5	6-8	9-12
Questioning & Analysis Skills	Sample 1			
Ecological Knowledge		Sample 2		
Skills for Understanding Issues		Sample 3	Sample 4	Sample 6
Citizenship/ Service			Sample 5	

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Web Resources

The North American Association for Environmental Education (NAAEE) at www.naaee.org.

EE-Link– a national electronic portal to information on EE resources, programs, grants, jobs, and more at www.eelink.net.

National Office of EE at the U.S. EPA at www.epa.gov/enviroed.

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Web Resources

Read the Association for Supervision and Curriculum Development (ASCD) InfoBrief on Environmental Education at www.ascd.org/readingroom/infobrief/issue26.html

Learn more about EPA's national educator training program, called The Environmental Education and Training Partnership (EETAP), at www.eetap.org.

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National Education Standards

Project 2061, American Association for the Advancement of Science. *Benchmarks for Science Literacy*. New York, NY: Oxford University Press, 1993.

Curriculum and Evaluation Standards for School Mathematics. Reston, VA: National Council of Teachers of Mathematics, 1989.

Standards for the English Language Arts. Urbana, IL: National Council of Teachers of English, 1996.

Expectations of Excellence: Curriculum Standards for Social Studies. Washington, DC: National Council for the Social Studies, 1994.

National Standards for Arts Education: What Every Young American Should Know and Be Able to Do in the Arts. Reston, VA: Music Educators National Conference, 1994.

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Activity Providers

We would like to thank the following organizations for allowing their activities to be included on this CD-ROM.

- California Department of Education
- California Integrated Waste Management Board
- Connecticut Resources Recovery Authority
- Council For Environmental Education
- Environmental Concern, Inc.
- Groundwater Foundation
- Keep America Beautiful, Inc.
- McGraw-Hill, Inc.
- National Council on Economics Education
- National Science Teachers Association
- National Wildlife Federation
- Schlitz Audubon Nature Center
- Population Connection
- Project Learning Tree
- Project WET, USA
- World Wildlife Fund
- Zephyr Press

Contact information appears on each activity.

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Meeting Standards Naturally

Produced by the **Environmental Education and Training Partnership (EETAP) in cooperation with the Association for Supervision and Curriculum Development.**

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Video: Michael Martin, UW-Stevens Point Telecommunications

Dedication: This is for Sharon Buzza who joined EETAP to make a difference, and she has.

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