

# FOR THE ENVIRONMENT

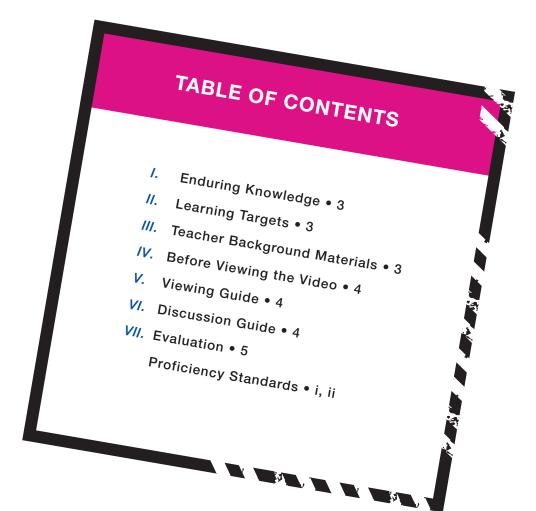
THE AMAZING

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MIDDLE SCHOOL CURRICULUM

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MIDDLE SCHOOL CURRICULUM



# I. Enduring Knowledge:

In order to live a healthy life in a healthy environment, students should have a familiarity with basic safety rules of outdoor activities, know and practice good nutrition and exercise essentials, and understand the environmental impact of human activity on the natural world through a respectful interaction with nature.

#### **Curricular Overview:**

This DVD features an exciting eco-trek race between two groups of students as they participate in outdoor activities (kayaking, archery, caving, and mountain biking), investigate the natural world by identifying rare plant species and environmental threats (deer ticks associated with Lyme disease and poison ivy plants), and reflect on the importance of a exercise (*Play60*) and nutrition (*MyPlate*).

Three separate curricula have been prepared, one for each of the three areas reflected in the DVD, with separate Learning Targets, Viewing Guides, and Extended Learning activities. The following materials focus on environmental studies.

## II. Learning Targets:

- 1. Students should be able to identify some of the rare plant and animal species found in the areas where they are engaging in outdoor activities.
- 2. Students should recognize the importance of respecting and protecting the environment while they engage in outdoor activities.

# III. Teacher Background Materials:

This DVD includes student identification of rare plant species. It is also VERY important that students understand the impact of outdoor activities upon the environment. While the focus in this program is worked into the larger themes of safety and health and nutrition, it is important for students to develop a personal awareness of how their behavior impacts the environment. The study could expand beyond silent sports (kayaking, archery, caving, and biking) to motorized outdoor activities, such as motorboat activities, snowmobiling, all-terrain-vehicles (ATVs), etc.





# **IV.** Before Viewing the Video:

Have students discuss some of the outdoor activities they engage in. Then ask them to make a list of ways in which these activities impact the environment. Tell them that the video you are about to show them has several areas of interest, but that your study is going to focus on environmental issues.

Ask them to note any rare or endangered plant or animal species in Wisconsin that they know of.

# v. Viewing Guide:

- 1. Have the students note what the students in the DVD did to find rare plant species. (Students take disposable cameras along as they kayak on the river. They identify two endangered plant species and take pictures of them. They are also asked to identify two natural dangers [deer ticks and poison ivy]. They work from a list of plants.)
- 2. Have the students think about and make notes on activities they see that have a potential negative impact on the environment. (Some examples might be leaving litter behind, straying off designated paths while biking, picking endangered plants, dragging invasive plant species on their kayaks, which could be spread to other bodies of water, etc.)

# **VI.** Discussion Guide:

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Review the two questions from the Viewing Guide. Spend particular time prompting students to really think hard about activities on the water and in the forest. Even the caves can be ruined by careless human activity; for example, touching the formations can affect them because of the oil found on human hands.





# **vii**. Evaluation:

Depending on the amount of time you want to spend on this study, you can:

- evaluate the student activities,
- assess their participation in note taking and discussions.

#### Suggestions for extended learning:

- 1. Working in teams, students could research what rare and endangered plant and animal species are found where they live. (If students' families have vacation cabins or spend time in other natural places in Wisconsin, have them develop a list for that area.) Have them make posters illustrating their findings.
- Have the students research invasive species and have them report the danger to the environment they cause and how they are spread. (For example, of concern in Wisconsin are invasive plant species, such as purple loosestrife; also, ash borer insects are threatening trees around the state, and are spread by people moving wood from one area of the state to another.)
- 3. Have students research the extensive system of trails throughout the state, such as the Ice Age Trail, the many ski, biking, and snowmobile trails that are found to encourage people to get out and enjoy the natural world. Students could make maps showing these and other trails.
- 4. Have students make posters or public service announcements about the natural beauty found in Wisconsin and the importance of taking care of these wonderful resources.



Encouraging safety, health, and environmental education, this curriculum is underwritten by *Community Insurance Corporation*.

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STUDENT PROFICIENCY STANDARDS > CARING FOR THE ENVIRONMENT



# The following Wisconsin Student Proficiency Standards can be met by teaching Caring for the Environment:

#### SCIENCE

- 1. Connections: How evidence explains phenomena
- 2. Inquiry: Understanding how questions direct research
- 3. Earth Science: Earth history & structure of earth
- 4. Physical Science: Motion & Forces

NOTE: Because student learning standards for science and physical education are now being processed in relation to national Core Curriculum Standards, a pertinent document is not available at this time.





#### WISCONSIN TEA STANDARDS > CARING FOR THE ENVIRONMENT

# Wisconsin Teacher Standards which can be met with this curriculum, including rationale:

#### **STANDARD 1:** Subject matter

This curriculum provides information not readily available in other forms. A teacher using this material will be well-informed about the subject matter.

#### **STANDARD 3:** Adapt instruction

The curriculum provides suggestions for learners with a variety of intelligences and levels of ability.

#### **STANDARD 4:** Instructional strategies

The curriculum includes the use of technology to gain information and suggestions for using research in extending learning.

#### **STANDARD 5:** Individual and group motivation

Both the use of prior knowledge and carefully designed group projects promote motivation for students to learn.

#### **STANDARD 6:** Verbal and nonverbal communications

Instructional media and technology that promote active learning are key parts of this curriculum.

#### **STANDARD 7:** Organizes and plans systematic instruction

The curriculum is organized to support teacher knowledge, to draw on and motivate students to engage in active learning, and promotes active inquiry, collaboration, and supportive interaction in the classroom.

#### **STANDARD 8:** Formal and informal assessments

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Suggestions for a variety of assessments, both formal and informal, are offered in the curriculum.

