



Frisch's Outreach:



Project Gr. 4-6

Kis Initiating Change In Nature

Extensions

At a glance

This program will show students can contribute to the well being of living things.

Goal(s)

This program is designed to increase understanding of biodiversity and the interconnections between all living things.

an action plan to address that discovered need.

5. Students will cooperatively activate their plan.
6. Students will assess and reflect upon their accomplishments.
7. Students will share and demonstrate their success with others.

Objectives

1. Students will be able to define the term Biodiversity.
2. Students will indentify four components of biodiversity in a selected portion of their community.
3. Students will cooperatively use decision making skills to address an indentified need to improve biodiversity in a selected portion of their community.
4. Students will cooperatively use decision making skills to generate

Theme

People can directly impact biodiversity in their community.

Sub-themes

1. All living things are interconnected in the web of life and benefit from Biodiversity.
2. People are dependant on a biologically diverse natural community.

Academic standards

Ohio Science Academic Content Standards	Grade 4 Life Sciences Diversity and Interdependence of Life – 2, 5
---	--

Ohio Academic Content Standards- Social Studies	<p>Scientific Inquiry Doing Scientific Inquiry – 1, 2, 5, 6</p> <p>Scientific Ways of Knowing Nature of Science – 1, 2, 3 Ethical Practices – 4</p> <p><i>Grade 5</i></p> <p>Life Sciences Diversity and Interdependence of Life – 1, 2, 3, 4, 5, 6</p> <p>Science and Technology Understanding Technology – 1 Abilities to do Technological Design – 2, 3</p> <p>Scientific Inquiry Doing Scientific Inquiry – 1, 2, 3, 4, 5, 6</p> <p>Scientific Ways of Knowing Nature of Science – 1, 2, 3, 4 Ethical practices – 5</p> <p><i>Grade 6</i></p> <p>Life Sciences Diversity and Interdependence of Life – 8 Nature of Energy – 5, 6, 7, 8</p> <p>Scientific Inquiry Doing Scientific Inquiry – 1, 2, 3, 4</p> <p>Scientific Ways of Knowing Nature of Science – 1 Ethical Practices – 2 Science and Society – 3, 4, 5</p> <p>Science and Society – 6</p>
	<p><i>Grade 4</i></p> <p>Geography Human Environmental Interaction – 9</p> <p>Citizens Rights & Responsibilities Participation – 1</p> <p>Social Studies Skills & Methods Obtaining Information – 1, 2, 3, 4 Thinking and Organizing – 5, 6, 7, 8 Communicating Information – 9 Problem Solving – 10</p> <p><i>Grade 5</i></p> <p>Geography Places and Regions – 4, 6, 7 Human Environmental Interaction – 8, 9</p> <p>Social Studies Skills and Methods Obtaining Information – 1, 2, 3, 4, 5, 6, 7 Communicating Information – 8 Problem Solving – 9</p>

	<p><i>Grade 6</i> Geography Human Environmental Interaction – 5, 6, 7 Movement – 8 Citizens Rights & Responsibilities Participation – 1 Rights & Responsibilities – 2 Social Studies Skills & Methods Obtaining Information – 1 Thinking & Organizing – 2, 3, 4 Communicating Information – 5, 6 Problem Solving –</p>
<p>Kentucky Core Content— Science</p> <p>Social Science</p>	<p><i>Grades 5 through 7</i> Life Science SC-M-3.1.1; SC-M-3.2.1; SC-M-3.4.1; SC-M-3.4.2; SC-M-3.5.1; SC-M-3.5.2; SC-M-3.5.3; SC-M-3.5.4 Scientific Ways of Thinking and Working</p> <p><i>Grade 4</i> Human Environmental Institutions SS-04-4.4.1</p> <p><i>Grade 5</i> Human Environmental Interaction SS-05-4.4.1; SS-05-4.4.3</p> <p><i>Grade 6</i> Social Institutions SS-06-2.2.1 Human Environmental Interaction SS-06-4.4.1; SS-06-4.4.4</p>

Background

Nature and people are intrinsically linked. Edward Osborne Wilson, a renowned American biologist, researcher, theorist, and naturalist, has identified and described our innate need to belong and interact with the living, natural world. Opportunities in nature allow all of us to self actualize, develop empathy, and realize that we are part of a larger, wondrous community. Pre-

Title (X-X): Extensions

teens, teens and young adults share an even more acute craving for belonging and a connection to nature than adults. Students struggling with anger, defiance,

substance abuse, low self-esteem, and other behavioral issues are intensely in need of becoming a part of something bigger than themselves.

In today's world, educators are keenly interested in actively connecting their students to positive experiences. How can students become engaged in activities that will prepare them for success in their academic and workplace endeavors? How can students contribute to their communities in empowering ways? How can students positively affect the natural world?

Service Learning can offer much to educators and students. Service Projects that incorporate activities in the natural world can address acute environmental needs but also offer collaborative learning to develop higher level thinking skills, problem solving, communication skills, and teamwork. Creativity, information literacy and action planning can also be enhanced when students choose projects of interest to them. Effective experiential learning strategies in many content areas can be utilized. Relevance is injected into student academic courses.

Students involved in Service Learning can develop a sense of affiliation and self-confidence. Individual as well as group interests and abilities are tapped. Learners can get an early start on developing competent skills to carry into higher levels of academic learning and the workplace.

Involvement in a Nature based Service Project, can allow for that first all important step toward placing a high value on what our natural world has to offer to us, individually, and to our communities. It can encourage learners to identify a need, develop a plan, activate a plan, reflect, and assess their success. It can help students move from "Yes, I can!" to "Yes, I will!" to "Yes, I did!"

Vocabulary

action – The process of doing something in order to achieve a purpose

assess – To look at carefully; to judge or evaluate it

assessment – A judgment about something

biodiversity – The variety of life on earth. (Bio-life; Diversity-variety)

collaborate – To work together

comparative – Compared with others considered relative to something known

conclusion – A decision made or the part that brings something to a close

data – Information often in the form of facts found from experiments and observations

demonstration – A presentation to others to show how something works

ecosystem – A natural unit consisting of all the plants animals and microorganisms in an area functioning together with all of the physical factors of the environment

evidence – Something that gives a sign or proof of a truth

food web – A complex set of interconnected food chains by which energy and materials circulate within an ecosystem

genetic pollution – This is an undesirable [gene flow](#) into wild populations from [feral](#), [non-native](#) or [invasive species](#)

goal – Something that you want to achieve

habitat – The place or environment where a plant or animal lives

hypothesis – Tentative explanation used for basis of further investigation

investigate – To carry out a detailed examination in order to find out about something

observe – To watch something attentively

prediction – Statement of what someone thinks will happen

reflect – To think about carefully

for ideas and guidance on Project Learning see the **Extensions portion of this document**

Extensions

Nature Based:

<http://www.arborday.org/>

<http://education.audubon.org/tips-bringing-nature-classroom>

<http://www.fws.gov/cno/conservation/schoolyard.cfm> school yard habitat projects

<http://generationon.org/kids/what-do-you-care-about>

Learning Channel

tlc.howstuffworks.com/family/nature-projects-4-kids.htm

http://library.fws.gov/Bird_Publications/house.html

The U.S. Fish and Wildlife service has a free pamphlet online for bird projects.

National Wildlife Federation (NFW)
Schoolyard Habitats Program

www.nwf.org/Get-Outside/Outdoor.../Schoolyard-Habitats.aspx

National Wildlife Federation
NWF.org/kids/Ranger-Rick.aspx

The U.S. Fish and Wildlife Service
<http://www.fws.gov/cno/conservation/schoolyard.cfm> school yard habitat projects
http://library.fws.gov/Bird_Publications/house.html free pamphlet online for bird projects.

Project Feeder Watch
www.birds.cornell.edu/pfw/index
(*classroom data gathering*)

Project Wild
Projectwild.org

Not Exclusively Nature Based:

<http://www.kidactivities.net/post/Community-Service-Ideas-for-Kids.aspx>

Resources

Broda, Herbert, Schoolyard Enhanced Learning: Using the Outdoors As An Instructional Tool, Stenhouse Publishers, 2007.

Louv, Richard, Last Child in the Woods: Saving Our Children From Nature Deficit Disorder. Algonquin Books, 2010.

Sobel, David, Place Based Education: Connecting Classrooms and Communities, Orion Society, 2004.

Biodiversity Reference Guides

Kricher, John C.

A Field Guide to Eastern Forests, Houghton Mifflin Company, 1998

Kricher, John C.

A Field Guide to California and Pacific Northwest Forests
Houghton Mifflin Company, 1998

Kricher, John C.
A Field Guide to Rocky Mountain and Southwest Forests
Houghton Mifflin Company, 1999

Crushman, Ruth Carol; Jones, Stephen R.
The North American Prairie
Houghton Mifflin Company, 2004

Windows on the Wild-Biodiversity Basics,
World Wildlife Fund; 1999 Acorn Naturalists

Websites
Cincinnati Zoo & Botanical Garden
www.cincinnati-zoo.org

Kids
American Library Association's Great Websites for Kids:
<http://www.ala.org/gwstemplate.cfm?section=greatwebsites&template=/cfapps/gws/displaysection.cfm&sec=1>

Awesome Library
<http://www.awesomelibrary.org/Classroom/Science/Animals/Animals.html>

Teachers
<http://www.awesomelibrary.org/Classroom/Science/Animals/Animals.html>