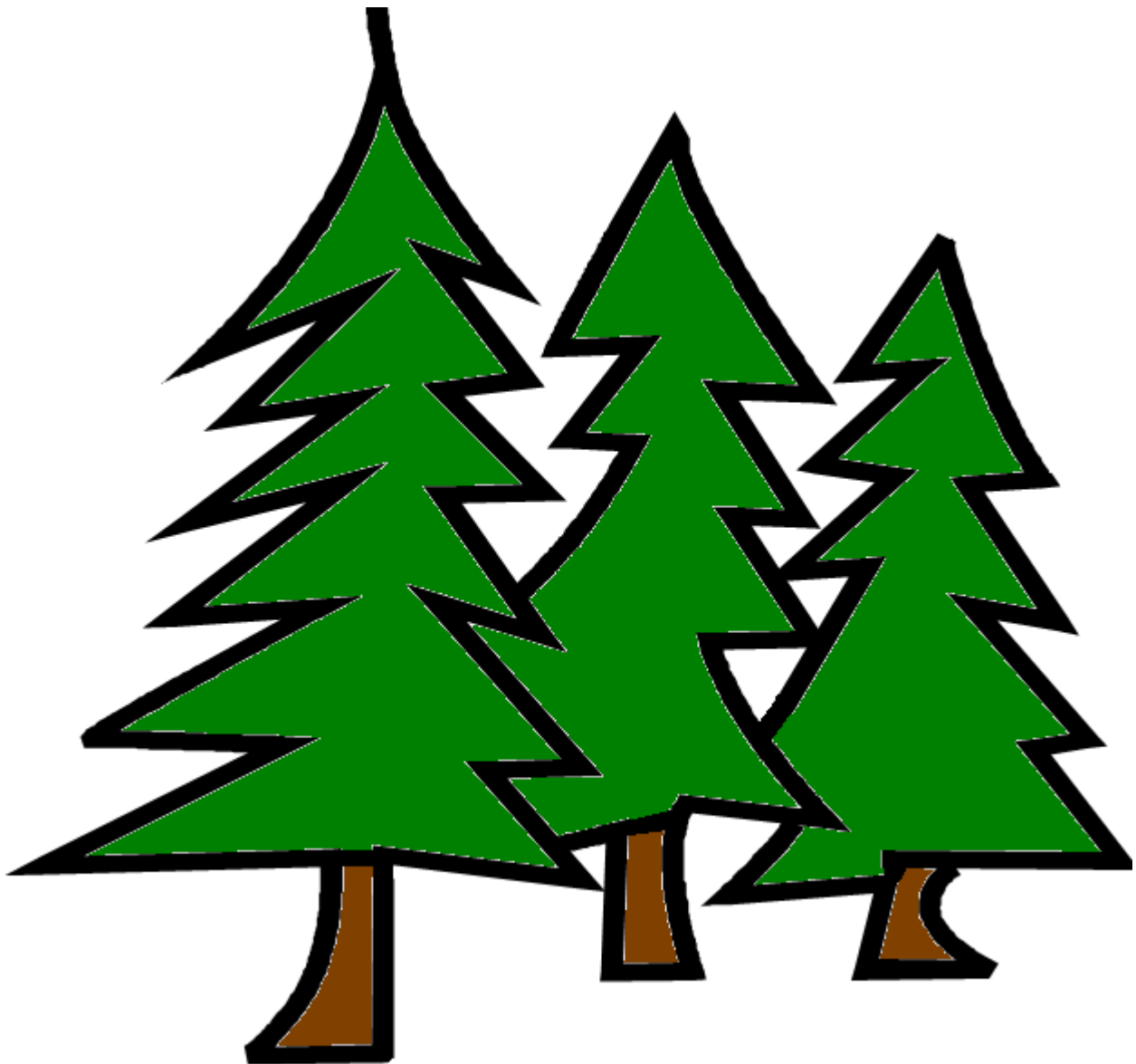


Port Edwards School Forest Education Plan



This education plan was produced under a 2008
Wisconsin Environmental Education Board (WEEB) Grant.

PORT EDWARDS SCHOOL FOREST EDUCATION PLAN

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RATIONALE

Value Statement

The primary goal of the school forest is to enhance students' knowledge in order to increase awareness and become actively engaged in environmental issues. Port Edwards has a long history of recognizing the importance of forests as an economical and cultural resource. The Port Edwards School Forest is a diverse learning environment that provides the opportunity to enhance and expand student and teacher sensitivity and awareness. Forest habitats include upland hardwoods, red pine plantation, and wetlands. Through ongoing development and refining, the forest will serve as a unique classroom for the school district and community of Port Edwards. Tying curricular content areas together through environmental education is an effective method to increase student achievement as well as create environmentally literate students. One of the methods to help students to become environmental stewards is through participation in classroom and field experiences that focus on environmental standards and benchmarks.

Target Messages

Create awareness of local, regional, and global environmental concerns to promote the development of environmental sensitivity and environmentally responsible behaviors. Identify and research regional ecosystems within the school forest to allow for active student participation in the assessment and professional management of the property. Promote a healthy physical lifestyle by introducing outdoor recreational activities. Encourage social collaboration through goal orientated activities. Infuse environmental education into all curricular areas using classroom and field experiences.

Needs Assessment Results

A survey was distributed to the staff and community members through the district newsletter. The following are the results from the 54 collected surveys.

School Forest Use:

Of the respondents 80% were aware the district had a school forest; however, only 39% of those who were aware of the school forest had ever visited. A total of 48% of respondents would like to utilize the school forest for activities including hiking, walking, fishing, birding, cross-country skiing, geocaching, picnics, family outings, and archery hunting for deer and turkey.

School Forest Facilities:

Currently, there are no facilities on the property other than the remnant small wooden structures remaining from the former paintball area in the northeast section. The following is a list of the 5 most popular potential improvements to the school forest.

- Create a site map including trails
- Construct an outdoor classroom/environmental center complete with utilities
- Improve existing trails—clear/make accessible
- Build wetlands crossings
- Develop new trails to possibly include a fitness course

SITE DESCRIPTION AND OPPORTUNITIES

The Port Edwards School Forest is located in portions of Wood County, Wisconsin in the Village of Port Edwards known as Section 26 Township 22 North Range 5 East of the NW ¼ of the SE ¼. Currently, there are no facilities on the property.



SITE HISTORY

Natural History

The school forest is located in the Central Plain of Wisconsin, commonly referred to as the driftless area. The glacial streams flowed into this area creating Glacial Lake Wisconsin approximately 10,000 years ago. This resulted in the deposition of sand and other materials on the school forest parcel. On the 40-acre parcel of the school forest, there is a north-south dividing ridge between the sandy upland soils to the west and loamy soils to the east. Much of the area in the eastern and southern sections of the parcel is comprised of loamy soils which drain poorly and are the wettest areas in the spring and fall. The Plainfield/Friendship association sandy soils in the western sections are nearly level with some gentle sloping and are moderately well drained.

Natural History continued

The school forest is almost entirely wooded. The parcel consists of three forest types based on a recent inventory of the timber stands. The largest stand consists of 23 acres and is a saw timber oak (black and white) stand. There is a 12 acre strip of lowland saw timber hardwoods located primarily in the southeast portion. The main timber types are red maple, black ash, black oak, and yellow birch. The third timber type is located in the northwest corner of the property and is a 3-acre saw timber red pine plantation aged around 60 years. Finally, there is a grassy opening of two acres located just north of the red pine plantation.

Preliminary indications of the property's wildlife show signs of whitetail deer, turkeys, songbirds, and squirrels.

Cultural History

In January of 2009, the former 29-acre NEPCO school forest property was sold to ERCO Worldwide, the adjacent manufacturer of chlor-alkali chemicals, for the price of \$126,000 along with an in-kind donation of \$150,075, totaling \$276,075. In April of 2009, the district acquired a replacement property for its school forest. A 40-acre parcel within the village limits off the cul-de-sac of Seventh Street adjacent to Ripple Creek Park became the current school district's forest. This site enables school district students to walk to the property without bussing.

Port Edwards School Forest Deed History Section 26 Township 22 North and Range 5 East NW ¼ of the SE ¼ Survey Map #8971

Land totaling 160 acres was given to Jesse H Lang from the US government on September 15, 1864 as a result of the Congressional Act of March 3, 1855 providing bounty land to servicemen during the Revolutionary War or in any war since 1790 and prior to the date noted (SW ¼ of the NE ¼, NE ¼ of the SE ¼ and the West ½ of the SE ¼).

Land sold to Nathan Palmer from Jesse and Mary Lang on September 18, 1858 for approximately \$50. (Price determined by dividing purchase price of \$200 by the 160 acre parcels bought – W ½ of SE ¼, SW ¼ of the NE ¼, and the NE ¼ of SE ¼.)

Land sold to LH and Jane Tibbetts from Nathan and Sarah Palmer on August 14, 1869 for approximately \$124 (price determined by dividing purchase price of \$495 by the 160 acre parcels bought - W ½ of SE ¼, SW ¼ of the NE ¼, and the NE ¼ of SE ¼).

The 40 acre parcel of the school forest was divided into a N ½ and S ½ and sold for approximately \$ 125 to Margaret (Dixon) and James Brennan from LH and Jane Tibbetts on August 19, 1869 (price determined by dividing purchase price of \$250 by the 80 acre parcels bought - SW ¼ of the NE ¼, N ½ of the N ½ of the SE ¼ - only ½ of the school forest property valued at \$ 62.50) and to John and Mary Charles from LH and Jane Tibbetts on the same date for other 80 acres also for \$ 250 (S ½ of the N ½ of the SE ¼ and the SW ¼ of the SE ¼ - only ½ of the school forest property valued at \$ 62.50).

The land owned by Margaret and James Brennan was transferred to Ellen Brennan (their daughter) on December 28th, 1889 for \$ 1.00 (SW ¼ of the NE ¼ and the N ½ of the N ½ of the SE ¼).

Cultural History continued

Sold to James (and daughter Ellen) Brennan from John and Mary Charles on June 25th, 1889 for the purchase price of \$ 80 for 20 acres purchased (S ½ of the NW ¼ of the SE ¼).

Transferred to husband James J Bruener from wife Ellen (Brennan) Bruener on May 29th, 1942 for the sum of \$ 1.00 for the 100 acres (SW ¼ of the NE ¼, NW ¼ of the NE ¼, and the N ½ of the NE ¼ of the SE ¼).

Transfer from James (son of James and Ellen) and Mary Bruener to Bruener Enterprises on May 1, 1964 land valued at approx. \$9,000 (price determined by dividing purchase price of \$54,000 by the 240 acre parcels bought).

Transfer from Bruener Enterprises to Bruener Timber Products on June 29, 1985 land valued at approx. \$19,000 (price determined by dividing purchase price of \$76,333 by the 160 acre parcels bought).

Sold to Rapid Fire Paintball (Dave Bruener, son of James and Ellen) from James Bruener Timber Products on June 17th, 2004 for \$32,000 (price determined by dividing purchase price of \$76,333 by the 160 acre parcels bought)

Sold to Ernie Krause, owner of Bruener Timber Products from Rapid Fire Paintball (Dave Bruener) on December 26th, 2007 for \$75,000 (price determined by dividing purchase price of \$150,000 by the 2-40 acre parcels bought).

Sold to the School District of Port Edwards from Ernie Krause on May 6th, 2009 for \$108,000

SITE MANAGEMENT

Key Goals

- Provide ecological education in a school forest setting.
- Sustain the overall health and diversity of the property.

Objectives

- Construct facilities to encourage better utilization of the forest for educational opportunities.
 - Activities - Develop an ad hoc committee consisting of community members, administration, faculty, students, and Friends of the Forest to determine building needs. Survey staff on building needs.
- Develop and maintain a trail system to include interpretive markers.
 - Activity - Determine biodiversity of the property and its different educational offerings
- Write and implement management plan in coordination with WI DNR forester.
 - Activities - The county forester will cruise the property to determine species populations and acreage size. The forester will meet with the Friends of the Forest Committee to determine goals to include in the management plan.
- Identify and control invasive species on the property.
 - Activity - Meet with a specialist to determine the best methods of controlling or eradicating invasive species.

EDUCATIONAL CONNECTIONS

Key Concepts

- As environmental stewards we have an integral role in sustaining or improving the health of our limited natural resources.
- Diversity of species within the ecosystem is a crucial indicator of its overall health.
- The natural world can provide creative opportunities to enhance our physical, social, and emotional well being.
- Ecosystems change through time due to disturbance, climate, succession, and other factors.
- Field equipment, technology, and application skills are used to study and explore the environment.

Classroom Curriculum Connections

Activities at the Port Edwards School Forest are closely tied to the classroom curriculum. View the curriculum chart for details. The final result is centered mostly on forestry concepts but does expand into water, soil, and air. The primary goal of this district is to produce environmentally literate students with a strong focus on forestry and its impact at the local, regional and global level.

Site Connections

The school forest site contains many diverse ecosystems such as a red pine plantation, mixed hardwoods, and lowlands. These site connections are denoted within the grid of curriculum.

Alignment with Wisconsin's Model Academic Standards and Environmental Education Standards

The Wisconsin Model Academic Standards and Environmental Education Standards are noted in the School Forest curriculum. Please see the curriculum chart.

Staff Development

Offerings of Opportunities

Spring 1997 – UWSP Professor Younkers trained 12 district teachers in outdoor education activities at the elementary school and in the Blackhawk outdoor classroom.

Spring 2005 – Provided LEAF training to 22 district teachers K-12 at John Edwards High School

Winter 2005 – Science teachers trained in forestry measurement activities at the NEPCO school forest

Fall 2006 – School and community visit the school forest for the ribbon cutting ceremony for the outdoor classroom at the NEPCO school forest.

Summer 2008 – Education Plan Committee members attended an inservice on the grant expectations for the education plan for the school forest in Edgerton, WI.

Summer 2008 – Elementary and middle school science teachers and communication arts teacher attended nature writing class.

Staff Development continued

Spring 2009 – Local forester, Juris Repsa, and WIDNR forester, Steve Grant, led tours during the staff inservice of the newly acquired 7th Street Ripple Creek School Forest property.

Future Plans

2009/2010 School year – All district teachers will pilot the school forest curriculum at either the Blackhawk Outdoor Classroom or the Ripple Creek School Forest.

Summer 2010 – Update the school forest curriculum to reflect feedback from piloting staff

Resources

Port Edwards Education Plan Committee –

- Deanne Borski – PESD elementary school teacher 5th grade
- Kristi Hawk – PESD middle/high school teacher Science
- Katie Krueger – PESD middle/high school teacher Communication Arts
- Ann Pickett – PESD elementary school teacher 4th grade
- Denise Severson – PESD elementary school teacher 2nd grade

Other Support

Statewide School Forest Coordinator – Gretchen Marshall

WIDNR Wood County Forester—Steve Grant

UW-Stevens Point Environment Education Professor—Dennis Yockers

Mead Wildlife Coordinator—Tom Meier

Sandhill Wildlife Educator—Dick Theil

UW-Stevens Point Professor Emeritus---Kent Hall

Materials Available

Grade 2

EE Strand	Activity Title	Item	#	Storage Placement
General	Observing forest interactions	Magnifying glasses	17	Grade 2
	"	Safety goggles	55	Grade 2
	"	Clipboards	15	Grade 2
General	Snow shoeing	Snow shoes	20	gym

Grade 3

EE Strand	Activity Title	Item	#	Storage Placement
Soil Wildlife	Earth Surface Changes	Clipboards	15	4 th grade

Grade 4

EE Strand	Activity Title	Item	#	Storage Placement
Wildlife	Hazardous waste	Safety goggles	16	4 th grade
	"	Work gloves	2	4 th grade
	"	Recycle bin	1	4 th grade
	"	Knee boots	1	4 th grade
	"	Helmet	1	4 th grade
	"	Bucket with ropes	1	PE
	"	Garbage Bag to carry clothes	1	Custodian
	"	Small dust pan and broom	1	Custodian

Materials Available continued

Grade 5

EE Strand	Activity Title	Item	#	Storage Placement
General	The fallen log	Pencils and rulers		5 th grade
General	Me as a Tree	Overhead and copies		5 th grade
	"	Crayon and scissors		5 th grade
General	Ecosystem extr.	Overhead and copies		5 th grade
General	Competition forest	String / ribbon		5 th grade
General	Tree Cookie	Magnifying glasses		5 th grade
	"	Poster paper		5 th grade
	"	Push pins		5 th grade

Grade 6

EE Strand	Activity Title	Item	#	Storage Placement
General	Soil Stories	White paper		School
	"	Magnifying glasses	6	6 th grade
	"	Jars with lids	6	Students
	"	Soup cans	6	Students
	"	Stop watches	6	6 th grade
	"	Hammer and board	1	Shop
	"	Pencil and paper		6 th grade
	"	Water		6 th grade

Grade 7

EE Strand	Activity Title	Item	#	Storage Placement
General	Snow Shoeing	Snow shoes	22	MS Science lab
COOP LA	The Wild River	Hula hoops	8	Elem PE
	"	4 colored rings	8	Elem PE
	"	Indoor bases	15	HS PE

Grade 8

EE Strand	Activity Title	Item	#	Storage Placement
S.S.	Forest Jeopardy / Leaf ID	Leaf ID packet	10	Mr. Hill

Grade 9-10

EE Strand	Activity Title	Item	#	Storage Placement
Forestry	Woods Worth	Biltmore sticks	20	MS Science lab
	"	Diameter taps	20	MS Science lab
	"	Flagging tape		MS Science lab
	"	Chain 100 ft tapes	8	WREN Closet
Water	WAV – Water Quality Testing	Hach Limnology Kits	8	WREN Closet
	"	Dip nets	10	WREN Closet
	"	Hip Waders	30	WREN Closet
	"	Stopwatches	8	WREN Closet
	"	ID Pond Life Books	10	WREN Closet
	"	CBL guages	8	MS Science lab
	"	Depth meter sticks	8	WREN Closet

Grade 11-12

EE Strand	Activity Title	Item	#	Storage Placement
General	Forest Marketplace	Dry erase boards and markers	20	Chemistry and Spanish Rms

Assessment

The success of the Port Edwards School Forest will be assessed in a variety of summative and formative methods to include:

- Evaluation of all professional development activities relating to the school forest by those in attendance to determine success and future needs.
- Increased usage of the school forest by the district staff, students, and members of the community.
- Anecdotal feedback from both the staff and students regarding their learning experiences at the school forest
- Item analysis of WKCE concepts relating to the environment and the school forest curriculum to determine strategies for improvement.
- Continued financial funding from future harvests, community donations and grant through the Wisconsin Environmental Education Board as well as the Port Edwards Education Foundation.

Sustaining the School Forest Program

School Forest Committee

The Port Edwards School Forests - Friends of the Forest Committee was formed in 2005 as a standing committee to support environmental education in the Port Edwards School District.

Port Edwards School Forests - Friends of the Forest Committee Responsibilities

- To seek financial funding (grant or fundraising) for future site and curriculum development of the school forest or the Blackhawk Outdoor Classroom
- To determine long range plans for the school forest property
- To access and implement continual site development and maintenance of school forest property
- To provide continual communication of on-going educational opportunities or site improvements of the school forest

Members

- Gary Blum – community member
- Jeanne Bruener – community member and classroom support staff member
- Kristi Hawk – teacher and school forest coordinator
- Walter Iwanski – community member
- Ann Pickett - teacher
- Juris Repsa – community member and forester
- Judy Schroeder – community member and retired district teacher
- Mark and Lori Schroeder – community members
- Michelle Smith – community member
- Mark Sweeney – community member

Communication

Communicating with the stakeholders of this experience is an integral aspect to the success of the school forest program. This information will be dispensed by the school forest coordinator or members of the Friends committee and will occur in the following manners:

- ✓ Monthly newsletter articles will be written to inform district residents of the happenings out at the school forest.

Communication continued

- ✓ The school forest page on the district website will be updated periodically throughout the school year to inform the public of Friends of the Forest meetings and participation in community events hosted at the school forest.
- ✓ Yearly updates of the management and curriculum opportunities of the school forest will be presented to the Port Edwards Board of Education.
- ✓ The Friends of the Forest Committee members will continue to offer teacher training in the areas of environmental education. Site improvements will lead to updated curriculum.
- ✓ Local media will be notified of worthy activities occurring at the Port Edwards School Forest for public announcement of professional development, site improvement projects, and community outreach opportunities.

Long Range Plan and Implementation

Goal	Objectives	Timeline
Continue meetings of the Friends of the Forest Committee	Assess needs for educational opportunities	2008 and beyond
Train teachers to use and enjoy the school forest with their students	Provide training sessions for teachers with a variety of natural resource specialists	2008 and beyond
Increase utilization of the school forest	<ul style="list-style-type: none"> • Pilot school forest curriculum • Develop and maintain facilities to meet user's needs 	<ul style="list-style-type: none"> • 2009/2010 school year • Ongoing

District Commitment

In 2004, the Port Edwards School District made a commitment to the Port Edwards School Forest through supporting and endorsing a Wisconsin Environmental Education Board School Forest Grant for approximately \$14,000, with a substantial match from the district and community. In 2008, the Port Edwards School District received a second Wisconsin Environmental Education Board School Forest Grant for \$4,000 to create an educational plan.

The Port Edwards School forest education plan was presented at the December 2009 board meeting for review.

The Port Edwards School District has had a long standing commitment of directing the profits from timber sales to benefit environmental educational opportunities.

The administration and school board continue to support activities and development of our school forest including the construction of an on-site environmental education facility and professional development activities during inservices.

Materials Needed

Grade K - 4

EE Strand	Activity Title	Item	Quantity Needed
General	Nature Rap	Containers, plastic, tin anything with lids	100 or more

Kindergarten

EE Strand	Activity Title	Item	Quantity Needed
General	Bug Writing	Magnifying glasses	15

Grade 1

EE Strand	Activity Title	Item	Quantity Needed
General	Thread the Needle	Magnifying glasses	10
	"	Hula hoops	5

Grade 2

EE Strand	Activity Title	Item	Quantity Needed
General	Observing Forest Interactions	Toilet paper tubes	On going

Grade 3

EE Strand	Activity Title	Item	Quantity Needed
Soil Wildlife	Earth Surface Changes	Forestry Ribbon	3 spools of different colors
Coop LA	Tree Maze	Tree Cookies	25

Grade 4

EE Strand	Activity Title	Item	Quantity Needed
Wildlife	Food Web	5 foot Bungee cords	20
General	Hazardous Waste	Coveralls	2

Grade 5

EE Strand	Activity Title	Item	Quantity Needed
General	The Fallen Log	Insect ID books	12
General	Shadow Stories	sketch books	One per student
	"	Small plastic containers with lids or bags	12
General	Competition In forest	Tokens like milk caps or poker chips	40 with four different types
	"	Stakes with flags	100-120 (12 colors if possible)
General	Tree Cookie	Large tree cookie	12
	"	Adding machine tape	1 roll

Materials Needed continued

Grade 6

EE Strand	Activity Title	Item	Quantity Needed
General	Soil Stories	Small plastic bags	2 boxes
	"	Toothpicks	2 boxes
	"	Trowels	6
	"	White paper plates	100
	"	Measuring cups	6
	"	PH tester	3

Grade 7

EE Strand	Activity Title	Item	Quantity Needed
General	Nature Writing	Clipboards	25

Grade 8

EE Strand	Activity Title	Item	Quantity Needed
General	Human-i-tree and family tree	Clipboards	25
General	Forestry jeopardy	Clipboards	25
General	Tragedy of the Commons	M&m bags	2
COOP L A	Almost Infinite Circle	Rope	100 ft
COOP L A	Arachnophobia	Bungee cords	Set of 25 various lengths
COOP L A	"	Clothes pins	20-30
COOP L A	Scavenger hunt	Compasses	10

Grade 9-10

EE Strand	Activity Title	Item	Quantity Needed
General	Trail and Error	Large tree cookies 12-15"	40

Grade 11-12

EE Strand	Activity Title	Item	Quantity Needed
General	Tree Measure	Tree measuring instruments	20
	"	Rope-flags to block 4 sections of 10X10	4 sets

Port Edwards School Forest Curriculum Grid

Appendix A

Produced as a part of the Port Edwards School Forest Education Plan sponsored by a 2008 WEEB grant.

Four Year Old Kindergarten					
Subject	Objective	Activity	Site Connection	Season	Standards
Science	Students will observe a chosen tree through seasonal changes	Project Learning Tree – Adopt a Tree	School Forest	All	
Art and Science	Students will recognize shapes in nature.	Project WILD – Shape and Color Walk	School Forest	Fall, Spring	
Science	Students will differentiate between real and fictional animals	Project WILD – Saturday Morning Cartoons	Outdoor Classroom	Winter	
Kindergarten					
Subject	Objective	Activity	Site Connection	Season	Standards
Science	Students will identify signs of fall.	Leaf Bracelets – partner with upper grade	Outdoor Classroom	Fall	S4
Science	Students will discover tracks from animals.	Animals Tracks – see fourth grade activity	School Forest	Any Season	S3
Science	Students will follow the life cycle of a monarch butterfly.	From Egg to Butterfly	Butterfly Garden	Fall	S3
Science	Students will identify basic needs of animals in a forest.	Animals Need Forests Too-LEAF –Activity 2	Outdoor Classroom	Fall, Spring	S3

First Grade					
Subject	Objective	Activity	Site Connection	Season	Standards
Science	Students will look for and identify living and non-living things.	Students will search for and observe living and non-living things within their environment.	Outdoor Classroom	Any Season	S3, S4
Science	Students will watch for signs of wind speed and direction	Students will observe flags, leaves, etc. to determine wind direction and predict wind velocity. Students will make pinwheels.	Outdoor Classroom	Fall or Spring	S6
Science	Students will recreate the rotation of the earth by observing the changes in their shadows.	Students will periodically throughout the day, make markings of their shadows and determine how the earth is moving to create the difference in their shadows.	Outdoor Classroom	Fall or Spring	S1
Second Grade					
Subject	Objective	Activity	Site Connection	Season	Standards
Science, Art	Students will identify living and nonliving organisms	Observing Forest Interactions – LEAF	Outdoor Classroom	Fall or Spring	S3-A2, S4, Art C–C5
Science, Art	Students will observe the changes in a tree as the different seasons occur.	All About My Tree-LEAF	Outdoor Classroom	Fall, Spring, Winter	S-A2, S4, Art C-C5
Science Language Arts	Students will make observations around them as they walk/snowshoe through the woods.	Snowshoeing/Walking the Outdoor Classroom	Outdoor Classroom	Winter (Could be adapted for other seasons as well)	S3-A2, L4-B2

Third Grade					
Subject	Objective	Activity	Site Connection	Season	Standards
Science Writing Reading	Absorption of heat energy by different colors	Heat Energy & Color	Outdoor Classroom	Fall or Spring	S5B3, S6aa3, S8b3 S9a3b3c3d .EE:A.4.1, A4.3, B4.2, L2A3, L4H3,
Science Math	Movement of the sun & telling time	Making a Sundial	Outdoor Classroom	Fall or Spring	S1a3, S2a3-b3, S9a3-c3 EE:A.4.1, A4.3, B4.2, M1B3, M4A3 - C3, M7A3
Science Math	Sampling of a large population	Kind of Bean-Math Sampling of Insects, leaves, etc.	Outdoor Classroom	Fall or Spring	S8b3, S9a3-d, EE:A.4.1, A4.3, M8C3, M1B3, M4, M6
Fourth Grade					
Subject	Objective	Activity	Site Connection	Season	Standards
Math Science Social Studies	Students will demonstrate use of a compass and calculate paces.	Migrateering	School Forest	Fall	S3, S4 SS M1 a4,c4 M4 a4, c4 M6 d4 EE: A.4.1, A.4.3, A4.4
Language Arts Science Art	Depict and describe a tree using all senses, structures, and space to reflect personality traits.	Personalitree Resource: Taking leadership Initiative Tri county schools	School Forest	Spring	S3, S4 L4 a4, b4 L5, L6 EE: A4.1, A4.2, A4.3, A4.4, B4.1
English Science	Identify animal tracks and use literary structure To compose a story	Tracks	School Forest	Winter	L3: a4, b4 L4: a4, b4 EE: A4.1, A4.2, A4.3, A4.4, B4.6

Fifth Grade					
Subject	Objective	Activity	Site Connection	Season	Standards
Science Art	Identify the process of decomposition	Project Learning Tree "The Fallen Log"	School Forest	Fall or Spring	(art)A.A6;C.C9;F.F7 S4-A5,B5 EE.B8.3,8.8
Science Language Arts	Identify energy flow through food chains and webs	LEAF "Ecosystem Extravaganza"	School Forest Classroom	Fall or Spring	(P.E.) A.A3;B.B4;D.D3 S4-A5,B5 L3-E5,F5 L4-A5,B5,E5,F5 EE.A8.4
P.E.	Develop snowshoe skills as a winter sport	Snowshoe trails in school forest	School Forest	Winter	(P.E.) A.A3;B.B4;D.D3
Science Language Arts	Identify parts of a tree and function	LEAF – "Me as a Tree" Activity #1 & #3 LEAF "Competition in Forests"	School Forest Classroom	Fall	SS2-H6 S4-A5,B5 L3-E5
Science Language Arts Social Studies	Identify environmental conditions related to tree growth	Examine cross sections of trees. Project Learning Tree "Tree Cookies"	Outdoor Classroom	Any Season	SS2-H6 S4-A5,B5 L3-A5,B5,E5,F5
Language Arts	Use shadow images to inspire creative writing	Nature Writing Field Guide for Teachers "Shadow Stories"	Outdoor Classroom School Forest	Any Season	L4.B5,C5,H5

Sixth Grade					
Subject	Objective	Activity	Site Connection	Season	Standards
Science Math Social Studies	Identify physical characteristics of soils	Project Learning Tree "Soil Stories"	Outdoor Classroom School Forest	Spring or Fall	SS1-B5 S4-B6 S9-A6M4-A6
Science Art	Identify tree species	Project Learning Tree "Name That Tree"	School Forest	Fall	(art) A.A6;C.C9 (P.E.) D.D1,D2 S4-A6
Science Math Art	Identify stages of leaf buds	Project Learning Tree "Bursting Buds"	School Forest Outdoor Classroom	Fall/ Winter/ Spring	(art) A.A6 S4-A6 M4-A6 L3.F5
P.E.	Develop snowshoe skills as a winter sport	Snowshoe trails in school forest	School Forest	Winter	(P.E.)A.A3;B.B4 D.D3
Math Science Social Studies	Measure trees using standard measurement	Project Learning Tree "How Big is your Tree?"	School Forest School Lawn	Fall	M1-E6;M3-B6;M4- A6 EE.B8.15 SS1-C5
Science Math	Determine the number of board feet in a tree	LEAF Field Enhancement "Wood's Worth" LEAF "We All Need Trees"	School Forest School Lawn	Any Season	M1-E3;M3-B6;M4- A6,C6 EE:B8.15;8.16
Language Arts	Use animal tracks to inspire creative writing	Nature Writing Field Guide for Teachers "Animal Tracks"	School Forest	Winter	L4-A5,B5,C5

Seventh Grade					
Subject	Objective	Activity	Site Connection	Season	Standards
Science Math Language Arts	Assess the overall water quality	Water Quality Management Field Guide and Water Action Volunteers Website - Water Testing	Wetlands	Spring	EE A8.1 A8.2 A8.5 B4.7 B8.19 C8.2 SCI LS S4.B7 ES S1.A8 S8.A8
Physical Education	Experience outdoor physical activities	Snowshoeing	School Forest	Winter	Physical Education: A.A3; B.B4; D.D3
Language Arts	Record observations and compare writing styles and approaches	Nature Writing Field Guide for Teachers - Zoom In & Zoom Out	School Forest	Fall/Winter/Spring	Language Arts: L4B7; L4C7
Science	Symbiotic Relationships	Project Learning Tree - Dynamic Duos	Anywhere	Anytime	EE B8.8

Eighth Grade					
Subject	Objective	Activity	Site Connection	Season	Standards
Science Math Language Arts	Assess the overall water quality	Water Quality Management Field Guide and Water Action Volunteers Website - Water Testing	Wetlands	Fall	EE A8.1 A8.2 A8.5 B4.7 B8.19 C8.2 SCI LS S4.B7 ES S1.A8 ES S8.A8
Physical Education	Experience outdoor physical activities	Yoga and Nature Meditation	School Forest	Fall/Spring	Physical Education: A.A3; B.B4; D.D3; D.D4
Language Arts	Use nature as the focal point of creative writing	Human-i-tree & family tree	School Forest	Fall/Winter/Spring	Language Arts: L4B8
Social Studies	Evaluate the impact of forestry and forest products on Wisconsin's economy, society, and environment	Forestry Jeopardy 7/8 Leaf Booklet Lesson 6: Activity 1 Page 118	School Forest	Fall/Spring	Social Studies: D.8.3 Environmental Education: A.8.4 B.8.16
Math	Understand the importance of managing finite resources	Tragedy of the Commons 7/8 Leaf Booklet Lesson 6: Activity 2 Page 119	Outdoor Classroom	Fall/Spring	Math: A.8.1 B.8.7 Environmental Education: A.8.4 B.8.16

High School Grades 9-10					
Subject	Objective	Activity	Site Connection	Season	Standards
Science Math Tech Ed (Ag)	Students will assess the social, economic and environmental value of our woods	Wood's Worth Adopted from the 5/6 LEAF booklet	School Forest	Fall	Agriculture Education B.8.1 D.8.2 Environmental Education: A.8.4 A.8.5 B.8.22 Math: B.8.2 D.8.3

High School Grades 11-12					
Subject	Objective	Activity	Site Connection	Season	Standards
Social Studies Tech Ed (Ag) Language Arts Info Tech/Marketing	Students will participate in activities which illustrate economic factors influencing the supply and demand for forest products	Forest Marketplace 9-12 LEAF booklet	School Forest	Fall	Agriculture Education: A.12.1 A.12.3 F.12.1 Environmental Education: B.12.10 B.12.11 B.12.16 Language Arts: C.12.3 Marketing: B.12.2 B.12.3 Social Studies: A.12.4 A.12.5 D.12.3 D.12.10