PLI

Correlation of Wisconsin's Model Academic Standards to Project Learning Tree's PreK-8
Environmental Education Activity Guide

### Wisconsin's Model Academic Standards

Our state has established rigorous goals for teaching and learning in 18 subject areas. As defined in the introduction to each document:

Academic standards specify what students should know and be able to do, what they might be asked to do to give evidence of standards, and how well they must perform. They include content, performance, and proficiency standards.

- Content standards refer to what students should know and be able to do.
- Performance standards tell how students will show that they are meeting a standard.
- Proficiency standards indicate how well students must perform.

#### Paraphrased Standards

In this document, you will find that the performance standards have been reworded to fit the tables. We hope these shortened statements will give some meaning to the numbers and letters of the standards as you refer to the tables. While every attempt has been made to preserve the intent of the standards, you should always consult the original wording for clarification, reference, and further correlations.

### About These Correlations!

Project Learning Tree (PLT) is a set of environmental education activities that focuses on forestry education. The hands-on interdisciplinary nature of the activities makes them ideal for meeting the needs of educators and students. We hope these correlations help to facilitate the infusion of PLT activities into Wisconsin's classrooms and other educational settings.

#### Disclaimer ©

Correlating written activities with the standards is challenging and subjective. Since you may have a different perspective on the standards and the activities, consider these charts as starting points for selecting and using PLT activities.

#### Direct Relationship

Only direct relationships have been identified. For example, if the use of mathematics is a primary focus of the activity and a performance standard is directly addressed, the standard is marked with a "\*". If the use of mathematics is secondary or the performance standard is simply

reinforced, the standard is marked with a "•". Incidental references to standards have not been correlated. For example, every PLT activity containing references to numbers could be correlated to the A.4 or A. 8 content standards in Mathematics.

#### Main Activity Only

To limit the scope of this project, correlations have **not** been made to variations, extensions, enrichments, or assessments. In some activities, these enhancements more completely address some of the academic standards.

#### Correlations Make No Assumptions

These correlations are based on the way the activity is written. They do not take into account the myriad of ways the activity could be modified to address a standard more directly or completely. In addition, if the content of the standard is referred to in the activity's background, but the students do not act on the information in the written activity, it is not included in the correlations.

#### Links to PLT Activity Descriptions

In the electronic version of this document, click on the name of the PLT activity to jump to a description of the activity. Each description includes the following: objectives, grade levels, subjects, and a complete listing of correlations to English Language Arts, Environmental Education, Math, Science, and Social Studies. Note: PLT's listing of subjects is not based on Wisconsin's Model Academic Standards. Therefore, a subject might be listed by PLT and not address any standards. In addition, standards might be addressed in an activity without the subject being listed by PLT.

### Project Spansors

The Wisconsin Environmental Education Board provided funding for this project (grant number 2000-0019). Production would not have been possible without the assistance of the Wisconsin Department of Natural Resources and Wisconsin's PLT Advisory Committee. This correlation was completed and designed by Beth Mittermaier.

#### @ 2001 WEEB and WDNR

### A. Questioning and Analysis

#### Content Standard

Project Learning Tree Activities

Air We Breathe

Every Drop Counts The Fallen Loa

Nature's Recyclers Planet of Plenty Power of Print

Trees As Habitats Trees in Trouble Watch on Wetlands

Are Vacant Lots Vacant?

Field, Forest and Stream

Sounds Around - Part B

Students in Wisconsin will use credible research methods to investigate environmental questions, revise their personal understanding to accommodate new knowledge and perspectives, and be able to communicate this understanding to others.

- Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards

Grade 8

& analyze

ts of investigations

ir investigations

modeling & simulating rategies to interpret

conduct experiments

issue questions

Grade 4

ike predictions, & offer explanations condusions, & revise understanding

sk questions & plan investigations

e ade	A.4.1 Make observations, ask questions &	A.4.2 Collect information, make predictions,	A.4.3 Develop answers, draw condusions, &	A.4.4 Communicate their understanding to		A.8.1 Identify environmental issue question	A.8.2 Collect information & conduct experi	A.8.3 Use techniques such as modeling $\&$ $\epsilon$	A.B.4 Use critical-thinking strategies to in	A.B.5 Use the results of their investigation	A.B.6 Communicate the results of investig			
8							•			•				
8 8	*	*	*	*										
8		*	*	*										
8	*	*	*								$\exists$			
8	*	*	*	*					$\neg$		$\neg$			
6	*	*	*	*					寸	$\neg \uparrow$				
6 6 8 8		*	*	•							1		$\neg$	
8						*	*							
8						•	*		•	•			ᅱ	
8	*	*	*	*					7	$\exists$		寸	ᅱ	
8 8		•								$\neg \dagger$		7	$\neg$	
8	T			$\Box$		*	*	$\neg$	*	$\neg$	$\neg$	$\dashv$	$\neg$	

Make ob	2 Collect in	3 Develop	4 Communi			Identify e	2 Collect in	3 Use tech	t Use critic	Use the	3 Communie			
A.4.	A.4.	A.4	A.4.			A.8.1	A.8.	A.8.3	A.8.4	A.8.E	A.B.6			
							•			•	_			
*	*	*	*				İ							
	*	*	*											
*	*	*												
*	*	*	*											
*	*	*	*											
	*	*	•											
						*	*							
						•	*		•	•	$\neg$			
*	*	*	*		$\exists$					$\neg \dagger$		$\neg \dagger$		
	•									$\dashv$	$\neg \uparrow$	$\neg \uparrow$	$\dashv$	
						*	*		*	7	$\dashv$		$\dashv$	
	**	* * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *

### B. Knowledge of Environmental Processes and Systems

#### Content Standard

Project Learning Tree Activities

Students in Wisconsin will demonstrate an understanding of the natural environment and the interrelationships among natural systems.

- Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards Grade 4

al resources in their daily live:

types of pollution

le & nonrenewable resources

of natural resources

al & human-built ecosystems sms adapt to their habitats

ecosystem

rgy in their daily lives

in natural systems

3-6 *	Grade	B.4.1 Describe the flow of energy	B.4.2 Illustrate how they use ene	B.4.3 List renewable and nonrenev	B.4.4 List the components of an	B.4.5 Describe Wisconsin's natura	B.4.6 Cite examples of how organi	B.4.7 Draw a simple hydrologic cy	B.4.8 Describe and give examples	B.4.9 Distinguish between renewab	B.4.10Describe how they use natur	B.4.11 List jobs in the community de	B.4.12Determine the cause of diff	
1-6	3-6			_			33	-	11.1	1	ш			
1-6	4-8				*									
1-6	K-6						*							
1-6	4-8						*							
1-6	4-8						•							
1-6	4-8										*			
1-6	4-8	*					*							
1-6	4-8		*	•					*	*	*			
1-6	4-8				*									
1-6 *	4-8									•	•			
	1 - 6						*							
4-6	4-6						*							

Air Plants	3-6	*										
Are Vacant Lots Vacant?	4-8	İ			*	T	j					
Birds and Worms	K-6						*					
Can It Be Real?	4-8						*					
Charting Diversity	4-8						•					7
Every Drop Counts	4-8									*		
The Fallen Log	4-8	*					*					
A Few of My Favorite Things	4-8		*	•				*	*	*		
Field, Forest and Stream	4-8				*							
Forest for the Trees	4-8								•	•		
The Forest of S. T. Shrew	1-6						*					
Germinating Giants	4-6						*					_

### B. Knowledge of Environmental Processes and Systems

#### Content Standard

Renewable or Not?

Students in Wisconsin will demonstrate an understanding of the natural environment and the interrelationships among natural systems.

- \* Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### B.4.5 Describe Wisconsin's natural & human-built ecosystems B.4.6 Cite examples of how organisms adapt to their habitats B.4.10Describe how they use natural resources in their daily lives B.4.11 List jobs in the community dependent on natural resources B.4.9 Distinguish between renewable & nonrenewable resources B.4.12Determine the cause of different types of pollution B.4.2 Illustrate how they use energy in their daily lives B.4.8 Describe and give examples of natural resources B.4.1 Describe the flow of energy in natural systems B.4.4 List the components of an ecosystem B.4.7 Draw a simple hydrologic cycle Project Learning Tree Activities Grade Habitat Pen Pals 3 - 6I'd Like to Visit a Place Where... 4 - 8• Life on the Edge 4-8 \* Make Your Own Paper 1 - 8Nature's Recyclers 1 - 6Nothing Succeeds Like Succession 3 - 8On the Move 4-8 \* People, Places, Thinas K - 3\* Picture This! PreK - 3 Pollution Search 2-6 Reduce, Reuse, Recycle 4-8 \*

4-8

#### Performance Standards Grade 4

\*

### B. Knowledge of Environmental Processes and Systems

#### Content Standard

Students in Wisconsin will demonstrate an understanding of the natural environment and the interrelationships among natural systems.

- Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards Grade 4

dependent on natural resources

ible & nonrenewable resources

s of natural resources

al & human-built ecosystems isms adapt to their habitats

ewable sources of energy

ıergy in their daily lives ly in natural systems

ade :	B.4.1 Describe the flow of energy	B.4.2 Illustrate how they use en	B.4.3 List renewable and nonren	B.4.4 List the components of ar	B.4.5 Describe Wisconsin's natu	B.4.6 Cite examples of how orgar	B.4.7 Draw a simple hydrologic c	B.4.8 Describe and give example	B.4.9 Distinguish between renewa	B.4.10Describe how they use natu	B.4.11 List jobs in the community	B.4.12Determine the cause of di	-	
- 8		*			1			*	-	*	_			
ade   3 -8 -5	T			*										
6	$\dashv$									*				
6 6 6 8					•									
-6										*				
-8						*								
8				•										
-6				*		*								
8 -6 -8							*							
-6										*				
-8				*										
-6											*			

Project Learning Tree Activities	Grade	B.4.1	B.4.2	B.4.3	B.4.4	B.4.5	B.4.6	B.4.7	B.4.8	B.4.9	B.4.10	B.4.11	B.4.12	
Resource-Go-Round	4-8		*						*		*			
School Yard Safari	PreK - 5	İ	Ì		*									
Talking Trash, Not!	1-6	Ì									*			$\neg$
Three Cheers for Trees	1-6					•								$\neg$
Tree Treasures	2-6										*			$\neg$
Trees as Habitats	3-8						*							
Trees in Trouble	1-8				•									
Tropical Treehouse – Part A	3-6				*		*							
Water Wonders	4-8							*						
We All Need Trees	4-6										*			$\neg$
Web of Life	4-8				*									$\neg$
Who Works in this Forest?	3-6											*		

### B. Knowledge of Environmental Processes and Systems

#### Content Standard

Project Learning Tree Activities

Air Plants

Air to Drive

Air We Breathe

Birds and Worms

Dynamic Duos

Energy Sleuths

The Fallen Loa

Every Tree For Itself

Are Vacant Lots Vacant?

Did You Notice? - Part B

Environmental Exchange Box

A Few of My Favorite Things

Students in Wisconsin will demonstrate an understanding of the natural environment and the interrelationships among natural systems.

- \* Activity directly addresses the achievement of the
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards Grade 8

are distributed around the world

ources found in Wisconsin

act their environment

cultures use natural resources

an ecosystem

ce use can impact the environment or land pollutants and their sources

hat impact resource availability

f how humans shape the environment

ent is perceived by various cultures

ong organisms

ion of matter

1 impact on various ecosystems

ems of Wisconsin

ization of matter

ergy in ecosystems

natural process of biodiversity

and 1t and 5tems. of the 1ent of	Describe the flow of ene	2 Explain how change is a	3 Explain the importance	B.B.4 Map the levels of organ	B.8.5 Give examples of human	B.8.6 Describe major ecosyst	B.8.7 Illustrate the conservat	B.8.8 Explain interactions am	B.8.9 Explain how the environme	B.B.10Explain & cite examples of	B.8.11 Describe our society as	B.B.12Provide examples of how	B.8.13Diagram how resources	B.B.14Identify the natural resc	B.B.15 Analyze how people impa	B.8.16Recognize the factors th	B.8.17 Explain how human resour	B.B.18ldentify major air, water, o	B.8.19Distinguish between poin	B.8.20Identify types of waste a	B.B.21 Identify and analyze effe	B.B.22 Identify careers related	B.8.23Identify resource-related <sub>(</sub>	B.8.24Create a timeline of Wiscons
Grade	B.8.1	B.8.2	B.8.3	B.8.	B.8.9	B.8.(	B.8.7	B.8.8	B.8.9	B.8.10	B.8.1	B.8.12	B.8.13	B.8.14	B.8.1E	B.8.16	B.8.17	B.8.18	3.8.19	3.8.20	3.8.21	3.8.22	3.8.23	3.8.24
3-6							•														_	ш.	ш	
5-8										*									$\dashv$		$\dashv$			
6-8 4-8																		*		$\dashv$	•			
					•			*	$\neg$	•			$\neg$					-	$\dashv$		_			-
K-6								•	_								$\neg$		$\dashv$	-		$\dashv$		$\dashv$
3-8								$\neg \dagger$						$\dashv$	$\dashv$		$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		*
5-8		$\Box$					$\neg$	*			$\neg$	$\dashv$	_	$\dashv$	$\dashv$	$\dashv$	_	$\dashv$	$\dashv$		$\dashv$	$\dashv$	$\dashv$	*
6-8							7		$\neg$		$\exists$	$\dashv$	$\dashv$	$\dashv$	•	*	*	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\dashv$	$\dashv$
K-8					$\neg$	•					$\neg$	7	十	•	-	+	+	十	+	-	$\dashv$	$\dashv$		$\dashv$
K-8			1		$\neg$		$\exists$	*	_	$\neg$		$\dashv$	十	$\dashv$		+	$\dashv$	$\dashv$	$\dashv$	$\dashv$	_	$\dashv$		$\dashv$
6-8 K-8 K-8 4-8		*	1		十		_	*	$\dashv$	$\dashv$	1		$\dashv$	_	-	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	_	$\dashv$
4-8				1	7	$\neg$		寸	十	$\dashv$	$\dashv$	$\neg$	$\dashv$	$\dashv$	-+	-+	•		$\dashv$	-+	$\dashv$	-	-+	$\dashv$

governmental and private agencies

ain history in resource management

and methods for waste reduction

ects of pollution on health

to natural resources

t and nonpoint source pollution

# B. Knowledge of Environmental Processes and Systems

#### Content Standard

Project Learning Tree Activities

Field, Forest and Stream
Forest for the Trees
A Forest of Many Uses
The Forest of S. T. Shrew

A Look at Aluminum - Part A

A Look at Lifestyles
Loving It Too Much

400-Acre Wood
Germinating Giants
Habitat Pen Pals
Life on the Edge
Living with Fire

Students in Wisconsin will demonstrate an understanding of the natural environment and the interrelationships among natural systems.

- \* Activity directly addresses the achievement of the standard
- Activity reinforces or supports the achievement of the standard.

### Performance Standards Grade 8

s are distributed around the world

sources found in Wisconsin

act their environment

w cultures use natural resources

s an ecosystem

of how humans shape the environment

tent is perceived by various cultures

nong organisms

in impact on various

tems of Wisconsin

ation of matter

nization of matter

ergy in ecosystems

a natural process

of biodiversity

nt and tems. of the	5.1 Describe the flow of en	B.B.2 Explain how change is	B.8.3 Explain the importance	B.8.4 Map the levels of organ	B.B.5 Give examples of huma	B.8.6 Describe major ecosyst	B.8.7 Illustrate the conserva	B.8.8 Explain interactions an	B.8.9 Explain how the environn	B.B.10Explain & cite examples o	B.B.11 Describe our society as	B.B.12 Provide examples of ho	B.8.13Diagram how resources	B.B.14Identify the natural res	B.B.15Analyze how people imp	B.8.16Recognize the factors	B.8.17 Explain how human resou	B.B.18ldentify major air, water,	B.8.19 Distinguish between poi	B.B.20Identify types of waste	B.B.21 Identify and analyze eff	B.8.22 Identify careers relateo	B.B.23Identify resource-related	B.B.24Create a timeline of Wiscor	
Grade	B.8.1	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8	B.8,	B.8	B.8.	B.B.	B.B.	B.8.	
4-8								*																	
4-8		•			•			•		•														$\Box$	
5-8										*					*										
1-6								*														$\neg$			
7-8 4-6					•			•		•					*						$\neg$				
4-6								•															$\dashv$	$\neg$	
3-6								•								$\neg$		$\dashv$	$\neg$			$\exists$	$\dashv$	$\neg$	
4-8		*			*			*										$\neg$					$\neg$	_	
4-8					*								$\neg$						$\exists$				•		
5-8													_				*	$\neg \dagger$	$\dashv$	•	$\dashv$		$\dashv$	$\dashv$	
5-8												*		$\neg$	*	$\neg$	*	$\neg$			$\neg$	$\dashv$	$\dashv$	$\dashv$	
6-8					*					*									$\dashv$				$\dashv$	$\dashv$	
												J						L							

d governmental and private agencies

nsin history in resource management

or land pollutants and their sources

arce use can impact the environment

that impact resource availability

and methods for waste reduction

fects of pollution on health

d to natural resources

int and nonpoint source pollution

### B. Knowledge of Environmental Processes and Systems

#### Content Standard

Project Learning Tree Activities

Nothing Succeeds Like Succession

Make Your Own Paper

The Native Way

Nature's Recyclers

Our Changing World

A Peek at Packaging

People of the Forest

Planning the Ideal Community

Planet of Plenty

Pollution Search

Reduce, Reuse, Recycle

Plant a Tree

Students in Wisconsin will demonstrate an understanding of the natural environment and the interrelationships among natural systems.

- \* Activity directly addresses the achievement of the
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards

of how humans shape the environment

nent is perceived by various cultures

nong organisms

n impact on various ecosystems

cems of Wisconsin

tion of matter

nization of matter

of biodiversity

ergy in ecosystems

Grade 8

are distributed around the world

sources found in Wisconsin

act their environment

w cultures use natural resources

s an ecosystem

or land pollutants and their sources

int and nonpoint source pollution

irce use can impact the environment

that impact resource availability

and methods for waste reduction

ects of pollution on health

d governmental and private agencies

nsin history in resource management

nt and stems. of the ent of	Describe the flow of en	Explain how change is	Explain the importance	B.B.4 Map the levels of organ	Give examples of huma	B.B.6 Describe major ecosyst	B.8.7 Illustrate the conserva	B.8.8 Explain interactions an	B.8.9 Explain how the environn	B.8.10Explain & cite examples	B.8.11 Describe our society as	B.B.12 Provide examples of ho	B.B.13Diagram how resources	B.8.14Identify the natural res	B.8.15Analyze how people imp	B.B.16Recognize the factors	B.8.17 Explain how human resou	B.8.18Identify major air, water,	B.8.19Distinguish between poi	B.B.20Identify types of waste	B.B.21 Identify and analyze eff	B.8.22 Identify careers related	B.8.23 Identify resource-related	B.8.24Create a timeline of Wiscor	
Grade	B.8.1	B.8.2	B.8.3	B.8.4	B.8.5	B.8.6	B.8.7	B.8.8	B.8.9	B.8.10	B.8.1	B.B.12	B.B.1	B.8.14	B.8.1E	B.B.16	B.8.17	B.8.18	B.8.19	B.8.20	B.8.21	B.8.22	B.8.23	B.8.24	
1-8							İ										•			•		i	_	$\neg$	
4-8									*			*								$\neg$				$\dashv$	
1-6		*																			$\neg \uparrow$	$\dashv$	$\dashv$	ᅥ	
3-8		*			•			*		•									$\neg$	$\neg$	$\neg \uparrow$		$\neg$		
5-8										*						$\neg \dagger$	*		$\exists$		$\neg$		_	一	
5-8															•				$\neg \dagger$	$\neg$			$\neg$	$\dashv$	
5-8 4-6					•				*			•				$\neg$					$\neg$		_	$\neg$	
4-6			*		•											7				寸	$\neg \dagger$	$\dashv$	$\dashv$	$\dashv$	
6-8										*	*								$\neg$	1	7	_	$\dashv$	$\neg$	
1-8										*									寸		_	$\neg$	十	$\dashv$	
2-6													7			1	7	*	_	7	•	$\dashv$	$\dashv$	$\dashv$	
4-8														一		寸	_	7	_	*	十	+	十	$\dashv$	
							·					J.		L		1			L						

### B. Knowledge of Environmental Processes and Systems

#### Content Standard

Project Learning Tree Activities

Renewable Or Not Resource-Go-Round School Yard Safari

Sounds Around - Part B

Three Cheers for Trees Trees as Habitats

Trees for Many Reasons

Soil Stories

Tepee Talk Then And Now

Tale of the Sun Talking Trash, Not!

Students in Wisconsin will demonstrate an understanding of the natural environment and the interrelationships among natural systems.

- \* Activity directly addresses the achievement of the
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards Grade 8

s are distributed around the world w cultures use natural resources

sources found in Wisconsin

act their environment

, or land pollutants and their sources

vint and nonpoint source pollution

fects of pollution on health

d to natural resources

urce use can impact the environment

that impact resource availability

d governmental and private agencies

nsin history in resource management

of how humans shape the environment

s an ecosystem

nent is perceived by various cultures

nong organisms

ation of matter

ecosystems

an impact on various

tems of Wisconsin

nization of matter

e of biodiversity

ıergy in ecosystems

nt and stems. of the nent of	.1 Describe the flow of er	.2 Explain how change is	3 Explain the importance	B.B.4 Map the levels of orga	5 Give examples of huma	B.B.6 Describe major ecosys	B.8.7 Illustrate the conserva	B.8.8 Explain interactions ar	B.8.9 Explain how the environn	B.B.10Explain & cite examples	B.B.11 Describe our society a	2 Provide examples of ho	B.B.13Diagram how resources	B.B.14Identify the natural re	B.B.15 Analyze how people imp	B.B.16Recognize the factors	B.B.17 Explain how human resou	B.B.181dentify major air, water	B.8.19Distinguish between po	B.B.20Identify types of waste	B.B.21 Identify and analyze ef	8.8.221dentify careers related	B.8.23Identify resource-relate	B.8.24Create a timeline of Wisco
Grade	B.8.1	B.8.2	B.8.3	B.8	B.8.5	B.8	B.8	B.8	B.8	B.8.	B.8.	B.8.12	B.8.	B.8.	B.8.	B.8.	B.8.	B.8.	B.8.	B.8.2	B.8.2	B.8.2	B.8.2	B.8.
4 – 8													*			•								
4-8													*		*	•	*	•						
PreK - 5								*																
5-8																	•							
6-8 K-6																		•			*		•	
K-6									*			*												
1-6																				*				
4-8												*			•									
5-8					*					*					*				$\dashv$					*
1-6										*									$\neg \dagger$					
3-8								*							_				$\neg$	$\dashv$				
2-8					*			•		*									$\dashv$			_		

### B. Knowledge of Environmental Processes and Systems

#### Content Standard

Project Learning Tree Activities

Where Are the Cedars of Lebanon?

Who Works in this Forest?

Trees in Trouble Tropical Treehouse

Waste Watchers

Water Wonders

Web of Life

Watch on Wetlands

Students in Wisconsin will demonstrate an understanding of the natural environment and the interrelationships among natural systems.

- \* Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards Grade 8

es are distributed around the world

esources found in Wisconsin

1pact their environment

now cultures use natural resources

as an ecosystem

er, or land pollutants and their sources

point and nonpoint source pollution

ource use can impact the environment

s that impact resource availability

te and methods for waste reduction

effects of pollution on health

ed governmental and private agencies

consin history in resource management

s of how humans shape the environment

Iment is perceived by various cultures

among organisms

vation of matter

nan impact on various ecosystems

stems of Wisconsin

ganization of matter

energy in ecosystems

s a natural process nce of biodiversity

nt and stems. of the sent of Grade	B.8.1 Describe the flow of	B.8.2 Explain how change i	B.8.3 Explain the importan	B.8.4 Map the levels of ore	B.8.5 Give examples of hun	B.8.6 Describe major ecosy	B.8.7 Illustrate the conser	B.8.8 Explain interactions	B.8.9 Explain how the enviro	B.8.10Explain & cite example	B.8.11 Describe our society	B.8.12 Provide examples of H	B.8.13Diagram how resourc	B.8.14Identify the natural r	B.8.15Analyze how people in	B.8.16Recognize the factor	B.8.17 Explain how human res	B.8.18Identify major air, wate	B.8.19Distinguish between p	B.B.20Identify types of was	B.8.21 Identify and analyze e	B.B.22Identify careers relat	B.8.23Identify resource-relat	B.8.24Create a timeline of Wisc
1-8	1 5	1 111	1	<u> </u>	*	107	1 77	a7	1 80	180	100	100	ω	8	B	Ω.	<i>σ</i> .	ω.	9	62		<u>a</u> ,		ω
3-8	-	<u> </u>	_	_								<u> </u>									*		*	
				_	*			*	*	•		*			•		•							
5-8																	*	•			*			
7-8					•	*								·						$\neg$	$\neg$		*	
4-8																	•			$\neg \dagger$	$\dashv$	$\dashv$	-	
4-8								*									$\dashv$	$\dashv$		$\dashv$	$\dashv$			$\dashv$
6-8									*	*		*			ᅥ	$\dashv$	*	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\dashv$	
3-6						$\neg$						-	$\neg$			$\dashv$		$\dashv$	$\dashv$	$\dashv$		*	-	$\dashv$
			_		$\neg$		_			-			-	$\dashv$		_			_	-		<b>不</b>		$\dashv$
	$\dashv$		$\dashv$	_						$\dashv$	_			$\dashv$	_	-	_			_		[		
			$\dashv$													_				_	_			
		l																$\perp$						

### C. Environmental Issue Investigation Skills

#### Content Standard

Students in Wisconsin will be able to identify, investigate, and evaluate environmental problems and issues.

- Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards

echniques to collect data study the people involved

if environmental issues

Grade 8

Grade 4

and future to specific issues

ms and issues

people that are involved

ıde	C.4.1 Identify environmental problen	C.4.2 Apply ideas of past, present, a	C.4.3 Identify people and groups of	C.4.4 Identify some of the decisions $\&$	C.4.5 Identify proposed solutions to		C.8.1 Define and provide examples o	C.8.2 Use environmental monitoring t	C.8.3 Use questioning & analysis to	C.8.4 Evaluate the credibility of info				
	0	Ü	)	0	0		•	0	*	*				
8 8 8 8								•		-				
8								•		-				
8			•	•										
8							*							
							-1-				$\dashv$			
					$\dashv$			_						
	_				-	-	_			$\dashv$				
									_					
										$\perp$				
		_												
- 1	- 1		1	- 1	- 1	1		l	1			I		

Project Learning Tree Activities	Grade	2.4.1	2.4.2	5.4.3	C.4.4	7.4.5		C.8.1	C.8.2	.8.3	C.8.4				
Power of Print	6-8	Ť	Ť	H	-	1	-	•	$\vdash$	*	*	<u> </u>	├-	_	├
Soil Stories	5-8	<del> </del>	-	┼	l	-	┼	+-	-	7	- Th		<u> </u>	-	_
Sounds Around – Part B	6-8	-		<del> </del>			├-	<del> </del>	•	-			<u> </u>		<u> </u>
Trees in Trouble		_		_				—	•						<u> </u>
Values on the Line	1-8			•	•		<u> </u>								
PARIOS OF THE LINE	6-8							*							
	:														
															l
											$\vdash$		$\vdash$		<u> </u>
														$\dashv$	
								$\vdash$	-					$\dashv$	
									. !		1				

### D. Decision and Action Skills

#### Content Standard

Project Learning Tree Activities

Air We Breathe

Earth Manners

Energy Sleuths

Every Drop Counts

Improve Your Place

A Look at Lifestyles

Forest Consequences 400-Acre Wood

I'd Like to Visit a Place Where . . .

A Look at Aluminum - Part B

Democracy in Action

Students in Wisconsin will use findings from environmental issue investigations to develop decision-making skills, and to gain experience in citizen action skills.

- \* Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards

ddressing an environmental issue

and disadvantages of solutions

influence an environmental issue

serve the local environment

cal, state, or national officials

Grade 8

egal, and budgetary options

ple participate in activities

an environmental issue

roving the local environment

Grade 4

ples of short- & long-term solutions

lge of a decision-making process

	* *	*			• * * * * * * * * * * * * * * * * * * *	* *	* • • *	* * *	• • * *	* *	*
		T	T	T				T	T	Τ	T
D.B.1 Identify options for a						*	*		•		
D.4.6 Develop a plan to pres					*			*			
D.4.5 Explain how they can					$\neg$	$\neg$					
D.4.4 Communicate with loc					•						
D.4.3 Identify ways to take			*		*						
D.4.2 Identify and give examp					*						
D.4.1 Demonstrate knowled					*						
ıde	- 8 - 8	.8	-4	8	8	· 8	8	8	8	8	8

	Ретоп	2 Identif	D.4.3 Identif	D.4.4 Сотт	D.4.5 Explair	D.4.6 Develo	D.B.1 Identif	2 List th	D.8.3 List re	D.8.4 Explair	D.8.5 Explair	D.B.6 Develo	D.8.7 Identif	D.B.B Give ex
Grade	D.4.1	D.4.2	D.4.	D.4.	D.4.	D.4.0	D.8.1	D.8.2	D.8.	D.8.	D.8.5	D.8.0	D.8.7	D.8.
6-8 5-8											*	*		
5-8														*
PreK – 4			*											
6-8										•				
4-8	*	*	*	•		*					*	*		
6-8							*	*					•	
7-8							*	•		•			*	
4-8						*					*	*		Г
5-8							•			•		*		*
5-8											*	*		
5-8													*	
														$\vdash$

### D. Decision and Action Skills

#### Content Standard

Project Learning Tree Activities

Loving It Too Much On the Move

Our Changing World A Peek at Packaging

Reduce, Reuse, Recycle Sounds Around - Part B

Trees for Many Reasons

There Ought to Be a Law - Part B

Talking Trash. Not!

Plant a Tree Publicize It!

Students in Wisconsin will use findings from environmental issue investigations to develop decision-making skills, and to gain experience in citizen action skills.

- Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards

sing an environmental issue

isadvantages of solutions

nce an environmental issue

the local environment

ate, or national officials ive environmental action

Grade 8

environmental issue

g the local environment 19 can impact an issue and budgetary options irticipate in activities

Grade 4

f short- & long-term solutions

a decision-making process

			*				
				*			
	•		•	•			
			*	*			
				•			
			*	*			
		*				*	
			*		*		
Annual Control of the last of							
						11	

### D. Decision and Action Skills

#### Content Standard

Project Learning Tree Activities

Values on the Line

We Can Work It Out

Waste Watchers

Students in Wisconsin will use findings from environmental issue investigations to develop decision-making skills, and to gain experience in citizen action skills.

- Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards

essing an environmental issue

d disadvantages of solutions

participate in activities

luence an environmental issue

ve the local environment

Grade 8

tions can impact an issue

liefs influence decisions

Grade 4

D.B.B Give examples of influence			•								$\dashv$
D.8.7 Identify how personal be	*		•							$\dashv$	$\dashv$
D.8.6 Develop a plan for impro		*			$\sqcap$					$\dashv$	$\dashv$
D.8.5 Explain how personal act		*					$\exists$			$\neg$	$\dashv$
D.8.4 Explain the political, leg							$\neg \uparrow$	$\Box$	$\exists$	寸	_
D.8.3 List reasons why people							$\neg$				
D.8.2 List the advantages and			*			П				$\neg$	十
D.B.1 Identify options for add			*			T	T				$\neg$
D.4.6 Develop a plan to preser		ļ									
D.4.5 Explain how they can inf										$\neg$	十
D.4.4 Communicate with local											$\neg$
D.4.3 Identify ways to take po											十
D.4.2 Identify and give example											寸
D.4.1 Demonstrate knowledge				[						$\neg$	寸
Grade 6-8 5-8	6-8	5-8	5-8								

### E. Personal and Civic Responsibility

#### Content Standard

Students in Wisconsin will develop an understanding and commitment to environmental stewardship.

- Activity directly addresses the achievement of the standard.
- Activity reinforces or supports the achievement of the standard.

#### Performance Standards

environmental stewardship enable people to cooperate Grade 8

Grade 4

nsibilities & the actions they require

al actions impact responsibilities

ade	E.4.1 Identify their civic respor	E.4.2 Understand how person	Market and the second s		E.8.1 Formulate a personal pl	E.8.2 Explain characteristics				
-8	*									
-8		*								
- 8 - 6 - 6 - 6	•									
.6	•									
- 6	•									
-8						•				
-6	•									

Project Learning Tree Activities	Grade	E.4.1	E.4.2			E.8.1	E.8.2					
Every Drop Counts	4-8	*									7	
Plant a Tree	1-8		*	T	İ	İ	Í	ĺ			T	1
Pollution Search	2-6	•		+		<b></b>			$\exists$		$\top$	
Talking Trash, Not!	1-6	•		1	<u> </u>				$\neg \dagger$	$\neg$	$\top$	17
Tree Treasures	2-6	•				<u> </u>			$\neg$		1	17
Trees for Many Reasons	2-8			<del></del>			•		$\neg$		$\top$	1
We All Need Trees	4-6	•		<u> </u>				$\neg$			$\top$	+
										1	$\top$	
				T							+	
				1								

#### Air Plants

Students will  $\ \$  demonstrate and describe the general process of photosynthesis and  $\ \$  explore the relationship between the amount of oxygen produced by plants and the amount of oxygen used by humans; Grades  $\ \ 3$  -  $\ \ 6$ ; Science, Math.

EE: B.4.1, B.8.7

M: B.4.5, B.8.7, D.4.5, D.8.4

S: F.4.4.

#### Air to Drive

EE: B.8.10 M: B.8.7

SS: A.8.11, D.8.11

#### Air We Breathe

Students will 1 identify various types of indoor air pollutants and their sources, 2 understand how various pollutants can be harmful to people's health, 3 trace how radon can get into buildings and eventually into our bodies, and 4 take action to improve indoor air quality; Grades 6-8; Science, Language Arts.

ELA: A.8.4

EE: A.8.2, A.8.5, B.8.18, B.8.21, D.8.5, D.8.6

5: H.8.3

#### Are Vacant Lots Vacant?

Students will ① describe plants and animals that live at and around the study site and ② give examples of and describe ecological relationships between biotic and abiotic elements at the study site; Grades 4 - 8; Science, Math, Visual Arts.

EE: A.4.1, A.4.2, A.4.3, A.4.4, B.4.4, B.8.5, B.8.8, B.8.10

S: C.4.2, C.4.5, C.4.6, C.8.2, C.8.4, F.4.4

#### Birds and Worms

Students will 1 simulate how predators use their vision to find prey, 2 describe some different ways animals use camouflage for survival, and 3 invent a fictional animal that is camouflaged for its particular environment; Grades K-6; Science, Math, Physical Education.

EE: B.4.6, B.8.8 M: A.4.2, E.4.3 S: F.4.1, F.4.4, F.8.2

#### Can It Be Real?

Students will  $\odot$  study the characteristics of unusual plants and animals and  $\odot$  describe how plant and animal species are adapted to a particular set of environmental conditions; Grades 4 – 8; Science, Language Arts.

ELA: C.4.2, F.4.1, F.8.1

EE: B.4.6

S: F.8.2, F.8.7

#### Charting Diversity

Students will 0 organize different species of plants and animals according to various characteristics and 0 determine how certain characteristics help species adapt to environmental conditions; Grades 4-8; Science.

EE: B.4.6

5: F.8.2, F.8.7

#### Democracy in Action

Students will ① compare two citizen groups, special-interest groups, or government agencies involved in the same issues, ② create visual representations of the two groups, and ③ explain ways students can become involved in the civic action process through participation in such groups; Grades 5-8; Social Studies, Visual Arts.

ELA: F.8.1 EE: D.8.8

55: C.8.6, C.8.8

#### Did You Notice?

Students will  $\odot$  identify changes in their local environment over the course of time and  $\odot$  create a timeline to illustrate patterns of change over time; Part A: Grades K - 4, Part B: Grades 3 - 8; Social Studies, Language Arts, Visual Arts.

ELA: F.4.1, F.8.1 EE: B.8.24

55: A.4.8, A.8.4, B.4.1, B.4.2, B.4.8

#### Dynamic Duos

Students will ① examine close relationships that exist between different organisms and ② explain how partners in these relationships help each other to survive; Grades 5-8; Science, Language Arts.

EE: B.8.8 S: F.8.2. F.8.7

#### Earth Manners

Students will express appropriate ways to treat living things and to act in forests, parks, and other natural areas; Grades PreK - 4; Science, Social Studies, Language Arts, Visual Arts.

ELA: C.4.2 EE: D.4.3 SS: C.4.1

#### Energy Sleuths

Students will ① identify different energy sources, ② discuss the pros and cons of various energy sources from economic, social, and environmental perspectives, and ③ describe some of the ways people use energy in their daily lives; Grades 6-8; Science, Social Studies.

ELA: A.8.4, C.8.2, F.8.1

EE: B.8.15, B.8.16, B.8.17, D.8.4

S: E.8.6, F.8.9, F.8.10

SS: A.8.10, B.8.8, C.8.7, D.8.7

#### Environmental Exchange Box

Students will 0 discover some of the resources, products, and other characteristics of their region and ways that people in their region are trying to improve the environment and 0 describe similarities and differences between their region and another region with respect to these characteristics; Grades K - 8; Science, Social Studies.

EE: B.8.6, B.8.14 S: E.4.5, F.4.4

SS: A.4.5, A.8.1, E.4.9

#### Every Drop Counts

Students will ① monitor their daily actions and estimate the amount of water they use in a day, ② describe how water is wasted and why it is important to conserve it, ③ design and implement a water conservation plan, and ④ determine the amount of water and money saved through their plan; Grades 4-8; Science, Social Studies, Math.

EE: A.4.2, A.4.3, A.4.4, B.4.10, D.4.1, D.4.2, D.4.3, D.4.4, D.4.6, D.8.5, D.8.6, E.4.1

M: A.4.3, A.8.3, B.4.5, B.8.5, B.8.7, D.4.4, D.8.3, E.4.5, E.8.4

5: C.4.2, C.4.4, C.4.6, C.8.3, C.8.7, E.4.7, E.8.6, F.8.9, F.8.10, G.8.3, H.4.2

SS: D.4.7, D.8.7, D.8.11

#### Every Tree for Itself

Students will ① simulate how trees compete for their essential needs and ② describe how varying amounts of light, water, and nutrients affect a tree's growth; Grades K-8; Science, Math.

EE: B.8.8 M: A.4.2

5: F.4.1, F.4.2, F.4.4, F.8.9, F.8.10

#### The Fallen Log

Students will  $\ \ )$  identify some of the organisms that live in, on, and under fallen logs and explain how those organisms depend on the dead wood for survival and  $\ \ )$  describe the process of decomposition; Grades 4-8; Science, Visual Arts.

EE: A.4.1, A.4.2, A.4.3, B.4.1, B.4.6, B.8.2, B.8.8

S: C.4.2, C.4.5, C.8.2, C.8.3, F.4.1, F.4.4, F.8.8, E.4.6, E.8.4

#### A Few of My Favorite Things

Students will ① explain how the different materials that go into making a product all come from natural resources, ② identify natural resources as being renewable or nonrenewable, ③ identify the steps that go into making a product, and ④ describe some of the impacts from obtaining and processing natural resources for making products; G and G science, Social Studies, Visual Arts.

EE: B.4.2, B.4.3, B.4.8, B.4.9, B.4.10, B.8.17

S: E.4.7, E.4.8, E.8.6, F.8.10

SS: D.4.7, D.8.11

#### Field, Forest, and Stream

Students will 0 investigate and measure components in three different ecosystems, 0 describe similarities and differences they observe among three ecosystems, and 0 identify ways that the abiotic components of an ecosystem affect the biotic components; Grades 4-8; Science, Math.

EE: A.4.1, A.4.2, A.4.3, A.4.4, B.4.4, B.8.8

M: D.4.3, D.4.4, D.8.3, D.8.4

S: C.4.2, C.4.4, C.4.5, C.8.2, E.8.4, F.4.1, F.4.2, F.4.4, F.8.8

#### Forest Consequences

Students will ① evaluate the options for managing or using a piece of forested land and ② make a land-use decision and explore the consequences of that decision; Grades 6-8; Science, Social Studies, Language Arts.

ELA: A.8.4, C.8.1, C.8.3 EE: D.8.1, D.8.2, D.8.7

S: B.8.6, F.8.10

55: C.8.7

#### Forest for the Trees

Students will ① participate in a simulation designed to teach how forest resources are managed and ② simulate managing a piece of land for various products; Grades 4-8; Science, Math, Social Studies.

EE: B.4.9, B.4.10, B.8.2, B.8.5, B.8.8, B.8.10

S: F.4.1, F.4.2, F.4.4, F.8.9, F.8.10

SS: A.4.4, A.4.6

#### A Forest of Many Uses

Students will 1 identify ways that people use forest resources, 2 explain that forests are managed to satisfy a variety of human needs, and 3 explore how different forest uses can be balanced with each other, Grades 5-8; Science, Social Studies.

EE: B.8.10, B.8.15

S: F.8.9 SS: D.8.11

#### The Forest of S. T. Shrew

Students will 0 identify microhabitats in the forest by drawing pictures or writing a story describing a microhabitat and 0 describe some of the plants and animals that characterize several microhabitats within the forest; Grades 1 – 6; Science, Language Arts, Visual Arts.

ELA: C.4.2

EE: B.4.6, B.8.8

S: F.4.1, F.4.4, F.8.2

#### 400-Acre Wood

Students will  $\odot$  create a management plan for a hypothetical piece of public forest land, taking into account factors such as ecosystem stability, monetary income or costs, wildlife, water, and visitors and  $\odot$  experience the analysis and decision making that goes into managing forest land; Grades 7-8; Science, Math, Social Studies.

EE: B.8.5, B.8.8, B.8.10, B.8.15, D.8.1, D.8.2, D.8.4, D.8.7

M: A.8.1, B.8.2, E.8.4

55: C.8.7, E.8.5

#### Germinating Giants

Students will  $\odot$  measure certain physical characteristics of at least three different trees and  $\odot$  compare various measurements from these trees and draw conclusions about the nature of each tree; Grades 4 – 6; Science, Math.

EE: B.4.6, B.8.8

M: B.4.5, B.8.7, D.4.4, D.8.3, D.8.4

S: F.4.3, F.8.2

#### Habitat Pen Pals

Students will ① explain the relationship between climate conditions and habitat, ② identify relationships between organisms within habitats, and ③ distinguish between kinds of animals that can and can't live in a particular habitat; Grades 3-G; Science, Language Arts.

ELA: B.4.1, B.8.1 EE: B.4.6, B.8.8 S: E.8.3, F.4.1, F.4.4

#### I'd Like to Visit a Place Where ...

Students will ① describe the characteristics of their favorite recreational area, ② explain the importance of recreational areas to people and other living things, and ③ conduct a project at a local park to improve a habitat or enhance its suitability to people; Grades 4 - 8; Science, Social Studies, Language Arts, Physical Education, Visual Arts.

ELA: B.4.1

EE: B.4.5, B.4.10, D.4.6, D.8.5, D.8.6

55: A.4.4, A.8.8, E.4.5, E.8.4

#### Improve Your Place

Students will ① identify ways they can improve their local area and ② carry out plans to improve the area; Grades 5-8; Science, Social Studies, Visual Arts.

EE: D.8.1, D.8.4, D.8.6, D.8.8

SS: C.8.7, E.8.4

#### Life on the Edge

Students will  $\odot$  identify environmental factors that can cause species to become endangered,  $\odot$  research the current status of several endangered plants or animals, and  $\odot$  present persuasive arguments for the protection of a particular plant or animal species; Grades 4-8; Science, Social Studies.

ELA: E.4.3, E.8.3, E.8.4, F.4.1

EE: B.4.6, B.8.2, B.8.5, B.8.8

5: B.4.1, F.4.1, F.4.4, F.8.2, F.8.9

55: A.4.8, A.8.11, E.4.10, E.8.8

#### Living with Fire

Students will ① describe a forest fire: how it starts, spreads, and burns out and ② explain several approaches to forest fire management; Grades 4-8; Science, Social Studies.

EE: B.8.5, B.8.23

M: E.4.1, E.4.3, E.8.2, E.8.4

5: F.4.4 SS: A.4.8

#### A Look at Aluminum

Students will ① understand how the unique properties of aluminum make it invaluable for many products and technologies on which we depend, ② describe the steps involved in extracting bauxite and processing aluminum from bauxite, and ③ explain the environmental impacts of producing new aluminum and recycling aluminum products; Grades 5-8; Science, Social Studies.

ELA: E.8.4

EE: B.8.17, B.8.20, D.8.5, D.8.6

SS: D.8.2, D.8.11, E.8.8

#### A Look at Lifestyles

Students will 0 analyze a Native American legend and traditional Native American attitudes toward using the land, 0 identify some of the values of the early American pioneers, and 0 create a chart comparing our own environmental beliefs and behaviors with those of traditional Native Americans and early pioneers; Grades 5-8; Science, Social Studies, Language Arts, Performing Arts.

ELA: C.8.2, F.8.1

EE: B.8.12, B.8.15, B.8.17, D.8.7

55: B.8.4, E.8.3

#### Loving It Too Much

Students will 1 explain how increased numbers of park visitors and activities outside park boundaries affect ecosystems within national and local parks and 2 offer possible solutions to problems facing national and local parks; Grades 6-8; Science, Language Arts, Social Studies.

ELA: A.8.4

EE: B.8.5, B.8.10, D.8.1, D.8.2

M: E.8.4

S: F.8.9, F.8.10 SS: D.8.5, D.8.11

#### Make Your Own Paper

Students will ① make recycled paper from scrap paper, ② describe the steps of the papermaking process and identify the elements and outputs of the process, and ③ compare making paper by hand to the process used in factories; Grades 1-8; Science, Social Studies, Language Arts, Visual Arts.

EE: B.4.2, B.4.10, B.8.17, B.8.20

#### The Native Way

Students will describe traditional Native American lifestyles and Native Americans' use of natural resources and the land; Grades 4-8; Science, Social Studies, Language Arts.

ELA: A.4.3, A.8.3, C.4.3, C.8.3

EE: B.8.9, B.8.12

S: E.8.6

SS: B.4.1, B.4.7, B.8.1, B.8.4, E.4.8, E.4.11, E.8.9, E.8.10

#### Nature's Recyclers

Students will ① understand and describe the process of decomposition, ② explain the function of scavengers and decomposers, and ③ experiment with sowbugs to determine what they eat and what their role is in the ecosystem; Grades 1-6; Science, Language Arts.

EE: A.4.1, A.4.2, A.4.3, A.4.4, B.4.1, B.8.2

5: C.4.2, C.4.5, C.4.6, C.4.8, C.8.2, C.8.3, C.8.4, C.8.7, F.4.1, F.4.4, F.8.8

#### Nothing Succeeds Like Succession

Students will ① explore basic relationships between species diversity and ecosystem stability, ② identify successional stages in ecosystems based on plant and animal species, and ③ draw conclusions about the process of succession based on study test plots in different stages of succession; Part A: Grades 3-6, Parts B and C: Grades 4-8; Science, Math, Language Arts, Visual Arts.

ELA: A.4.2

EE: B.4.4, B.4.6, B.8.2, B.8.5, B.8.8, B.8.10

S: A.4.5, C.4.2, C.4.5, E.4.6, F.4.2, F.4.4, F.8.8, F.8.9

#### On the Move

Students will ① compare various transportation methods for getting to and from school, ② describe the transportation systems their community uses, and ③ design or propose a practical and efficient transportation system for the future; Grades 4-8; Science, Math, Social Studies, Visual Arts.

EE: B.4.2, D.4.2, D.8.1, D.8.2 S: G.8.3, G.8.4, H.4.1, H.4.2

#### Our Changing World

Students will ① identify some global environmental patterns, ② discuss issues related to global change, and ③ describe actions that people can take to improve the environment and quality of life; Grades 5-8; Science, Social Studies, Language Arts.

ELA: C.8.1

EE: B.8.10, B.8.17, D.8.5 S: E.4.6, F.8.9, F.8.10

#### A Peek at Packaging

Students will ① describe the different purposes for packaging, ② identify the pros and cons of different types of packaging, and ③ explore how packaging affects our decisions as consumers; Grades 5-8; Science, Social Studies, Visual Arts.

EE: B.8.15, D.8.5

S: E.4.7, E.4.8, G.8.3, H.8.3

#### People of the Forest

Students will ① describe the lifestyles of several forest-dwelling peoples of the present or past and ways that they depend upon the forest, ② describe some of the effects forest people have on their environment, and ③ write a story focusing on a day in the life of a member of one group of forest people; Grades 5-8; Social Studies, Language Arts.

ELA: A.8.4, B.8.1, C.8.2, F.8.1 EE: B.8.5, B.8.9, B.8.12 SS: A.8.8, B.8.10, E.8.3

#### People, Places, Things

Students will  $\mathbb Q$  explain how human communities are made up of different types of people, places, and things and how they all fit together and  $\mathbb Q$  investigate some of the people, places, and things that make up their own community; Grades K -3; Social Studies.

EE: B.4.5 SS: E.4.5

#### Picture This!

Students will  $\ \$  identify similarities and differences between organisms by collecting pictures and categorizing them and  $\ \$  comprehend the connection between diverse organisms and the diverse environments in which they live; Grades PreK - 3; Science, Visual Arts, Math.

EE: B.4.6

#### Planet of Plenty

Students will  $\odot$  investigate the diversity of plants and animals on a small plot of land and  $\odot$  explain the value of a diversity of life forms in a particular ecosystem; Grades 4 - 6; Science, Language Arts, Visual Arts.

ELA: C.4.1, C.4.2, C.8.1, C.8.2

EE: A.4.2, A.4.3, A.4.4, B.8.3, B.8.5

5: C.4.2, C.4.4, C.4.5, C.4.6, C.4.7, C.4.8, C.8.2, C.8.3, C.8.4, C.8.5, C.8.6, C.8.7, C.8.11, F.4.4, F.8.8

#### Planning the Ideal Community

Students will  $\ 0$  map the locations of services and resources in their community and  $\ 0$  create a map of an "ideal" community that includes all the services and resources people need to live there; Grades  $\ 6-8$ ; Math, Social Studies, Language Arts, Visual Arts.

EE: B.8.10, B.8.11

#### Plant a Tree

Students will 1 identify ways that urban trees enrich our lives, 2 determine how people care for urban trees, 3 identify areas in the community that would benefit from having more trees, and 4 organize and execute a class tree-planting project in a local area; Grades 1-8; Science, Social Studies.

EE: B.8.10, D.4.3, D.4.4, D.4.6, D.8.6, E.4.2 S: F.4.1, F.4.2, F.4.4, F.8.2, F.8.9, F.8.10

SS: C.4.5, D.4.7, D.8.11, E.4.5

#### Pollution Search

Students will ① identify forms of pollution and describe the effects that various pollutants can have on people, wildlife, and plants and ② describe relationships between various forms of pollution and human actions; Grades 2 - 6; Science, Social Studies, Math.

ELA: C.4.1, C.4.3, C.8.2, C.8.3 EE: B.4.12, B.8.18, B.8.21, E.4.1

S: F.4.4, F.8.9 SS: D.4.7, D.8.11

#### Power of Print

Students will ① compare different sections of a daily newspaper, ② analyze some of the ways that ideas and opinions are expressed through word choice, ③ research opposing sides of a local environmental issue, and ④ write articles on environmental issues using both objective and subjective points of view; Grades 6-8; Social Studies, Language Arts, Visual Arts, Performing Arts.

ELA: A.8.4, B.8.1, C.8.2, D.8.1, F.8.1 EE: A.8.1, A.8.2, C.8.1, C.8.3, C.8.4

55: C.8.7, E.8.8

#### Publicize It!

Students will 0 plan and carry out a community action project and 0 use the media to create public awareness about the event; Grades 5 - 8; Science, Social Studies; Language Arts, Visual Arts, Performing Arts.

ELA: B.8.1, B.8.2, E.8.3, E.8.4 EE: D.8.3, D.8.5, D.8.6

55: E.8.4, E.8.8

#### Reduce, Reuse, Recycle

Students will ① learn about ways to reduce solid waste in their community by reducing consumption, reusing products, recycling materials, and composting and ② communicate to others the importance of recycling in their community; Projects 1 and 2; Grades 4 – 8; Project 3: Grades 6 – 8; Science, Math, Social Studies, Language Arts.

ELA: B.4.1, B.4.2, E.8.3

EE: B.4.11, B.8.20, D.4.3, D.4.6, D.8.5, D.8.6

M: A. 8.3, B.8.7

S: E.4.7

SS: D.4.7, D.8.11, E.8.4

#### Renewable or Not

Students will ① identify renewable, nonrenewable, perpetual, reusable, and recyclable resources and explain the differences among them and ② play a game that simulates society's use of renewable and nonrenewable resources; Grades 4-8; Science, Social Studies.

EE: B.4.8, B.4.9, B.8.13, B.8.16

S: E.4.7, E.4.8, E.8.6

SS: D.4.2, D.4.7, D.8.2, D.8.11

#### Resource-Go-Round

Students will 1 identify the natural resources from which products are derived, 2 trace the lifecycle of a product from natural resources, to the raw materials, to the finished product, and 3 describe how energy is consumed in the manufacturing and transportation of products and how it might be conserved; Grades 4-8; Science, Social Studies.

EE: B.4.2, B.4.8, B.4.10, B.8.13, B.8.15, B.8.16, B.8.17, B.8.18

S: E.4.7, E.4.8 SS: A.8.7, D.8.7

#### School Yard Safari

Students will ① find signs of animals living in the school yard and ② describe ways the school environment provides those animals with what they need to live; Grades PreK -5; Science, Language Arts.

EE: B.4.4, B.8.8

S: C.4.2, C.4.4, C.4.5, C.4.6, C.8.2, F.4.1, F.4.4

#### Soil Stories

Students will 0 identify components of soil and how these components determine its function, 0 explain how different soil types determine the characteristics of ecosystems, and 0 predict the influence of soils on water filtration and on human use of an area; Grades 5-8; Science, Math, Social Studies.

EE: B.8.17, C.8.2

M: D.8.3, D.8.4, E.8.4

5: C.8.3, C.8.4, C.8.6, E.8.4

#### Sounds Around

Students will ① identify sounds and map their location in the environment, ② explain how noise can be a problem in the community, ③ create and carry out a plan to lessen a local noise problem, and ④ study a Greek myth about sounds in nature; Part A: Grades 1-6, Part B: Grades 6-8, Part C: Grades PreK - K; Science, Language Arts, Social Studies, Math.

ELA: C.4.2

EE: A.8.1, A.8.2, A.8.4, A.8.5, B.8.18, B.8.21, B.8.23, C.8.2, D.8.6

M: D.8.3, E.8.1, E.8.2, E.8.4 S: C.8.4, C.8.6, D.8.8, F.8.2 SS: C.8.7, C.8.8, E.4.11, E.8.4

#### Tale of the Sun

Students will 1 describe how stories reveal the beliefs of the people who tell them and 2 read or listen to an American Indian story to gain insight on the vital importance of the sun; Grades K - 6; Language Arts, Science, Social Studies.

ELA: A.4.3, A.8.3, C.4.2, C.8.2

EE: B.8.9, B.8.12 SS: E.4.11, E.8.10

#### Talking Trash, Not!

Students will ① analyze the solid waste that they generate over a period of time, ② describe what happens to various types of waste when it's discarded, and ③ develop and implement a plan for reducing the amount of waste they generate; Grades 1 – 6; Science, Social Studies, Math.

EE: B.4.10, B.8.20, D.4.6, D.8.1, D.8.5, D.8.6, E.4.1

S: E.4.7, E.8.6

99: D.4.7, D.8.11, E.8.4

#### Tepee Talk

Students will describe several different types of Native American shelters and the materials that were used to make them; Grades 4-8; Science, Social Studies, Visual Arts.

EE: B.8.12, B.8.15 SS: A.8.9, B.4.1, E.4.9

#### Then and Now

Students will ① describe the environmental changes that have occurred in their community over the course of time, ② discuss whether those changes have been positive or negative for the community, and ③ discuss ways to remedy negative changes; Grades 5-8; Social Studies, Science, Language Arts.

EE: B.8.5, B.8.10, B.8.15, B.8.24

55: A.8.4, B.8.1

#### There Ought to Be a Law

Students will ① describe how a group of students can make and change rules, ② compare rulemaking in a group to the lawmaking process in local government, ③ research the steps necessary to make a proposed change in their community, and ④ create a poster that shows the effects of their proposed change and that depicts the lawmaking process; Part A; Grades 3-8; Part B: Grades 6-8; Math, Social Studies, Language Arts, Visual Arts.

ELA: F.8.1

EE: D.8.4, D.8.8

SS: C.4.3, C.8.3, C.8.7, C.8.8

#### Three Cheers for Trees!

Students will 1 describe the ways in which trees benefit people and 2 make pictures or models depicting how trees may be used to improve the human-made environment; Grades 1 – 6; Science, Social Studies, Visual Arts.

EE: B.4.5, B.8.10

#### Tree Treasures

Students will 0 identify and categorize products derived from trees, 0 find out which forest products are recyclable or reusable, and 3 recommend actions for conserving forest resources; Grades 2-6; Science, Social Studies; Visual Arts.

EE: B.4.10, E.4.1

S: E.4.7

#### Trees as Habitats

Students will ① take inventory of the plants and animals that live on, in, and around trees and ② identify ways those animals and plants depend on trees for survival and, in turn, influence the trees; Grades 3 - 8; Science, Math, Social Studies, Visual Arts.

EE: A.4.1, A.4.2, A.4.3, A.4.4, B.4.6, B.8.8

M: A.4.2

S: C.4.2, C.4.4, C.4.5, C.4.6, C.8.2, C.8.4, F.4.4, F.8.8

#### Trees for Many Reasons

Students will discuss and analyze a fictional story relating to the proper and improper use of natural resources; Part A: Grades 2-8, Part B: Grades 6-8; Science, Social Studies, Language Arts.

ELA: A.8.3, C.4.2, C.8.2, C.8.3

EE: B.8.5, B.8.8, B.8.10, D.8.5, D.8.7, E.8.2

5: F.4.4, F.8.9, F.8.10 SS: A.4.4, D.4.7, D.8.11

#### Trees in Trouble

Students will ① cite factors that can cause trees to become unhealthy, ② describe symptoms of unhealthy trees, ③ compare environmental conditions that affect both human health and plant health, and ④ identify people or agencies that care for trees and forests; Part A: Grades 1-8, Part B: Grades 4-8; Science, Math, Social Studies, Language Arts, Performing Arts.

ELA: A.4.4, A.8.4

EE: A.4.2, B.4.4, B.8.5, B.8.21, B.8.23, C.4.3, C.4.4

5: C.4.2, C.4.4, C.4.5, C.8.2, C.8.3, C.8.4, F.4.1, F.4.2, F.8.2

#### Tropical Treehouse

Students will ① describe the plants and animals that live in different levels of the tropical rainforest, ② examine and discuss a case study that involves the rights of native inhabitants of a tropical rainforest in a national park, and ③ describe the sounds they might encounter when visiting a rainforest; Part A: Grades 3-6, Part B: Grades 6-8; Science, Social Studies, Language Arts, Performing Arts, Visual Arts.

ELA: A.8.4, C.8.3, F.4.1, F.8.1

EE: B.4.4, B.4.6, B.8.5, B.8.8, B.8.9, B.8.10, B.8.12, B.8.15, B.8.17

S: F.4.1, F.4.4, F.8.9, F.8.10

55: A.8.8, B.8.10, C.8.3, E.8.3, E.8.10

#### Values on the Line

Students will ① examine statements regarding environmental issues and determine the degree to which they agree with them, ② share their views and opinions with others and gain awareness on the range of values related to environmental issues, and ③ identify the need for balanced information when forming opinions; Grades 6-8; Social Studies, Science.

ELA: C.8.1, C.8.2, C.8.3

EE: C.8.1, D.8.7

SS: E.4.7, E.8.2, E.8.6, E.8.7

#### Waste Watchers

Students will 1 identify ways to save energy in their daily lives and 2 explain how saving energy can reduce air pollution; Grades 5-8; Science, Math, Social Studies.

EE: B.8.17, B.8.18, B.8.21, D.8.5, D.8.6

M: A.8.1, B.8.7, D.8.3

5: E.8.4, E.8.6

55: A.8.10, A.8.10, D.8.11

#### Watch on Wetlands

Students will  $\odot$  study a wetland ecosystem and  $\odot$  analyze the issues and opinions relating to the management and protection of wetlands; Grades 7 – 8; Science, Social Studies, Language Arts, Performing Arts.

ELA: A.8.4, C.8.1, C.8.3, F.8.1

EE: A.8.1, A.8.2, A.8.4, B.8.5, B.8.6, B.8.23

5: C.8.1, C.8.2, C.8.3, C.8.4, C.8.5, C.8.6, C.8.7, F.8.8

55: C.8.7, E.8.4

#### Water Wonders

Students will ① simulate the paths that water takes in the water cycle, ② describe the importance of the water cycle to living things, ③ conduct an experiment to discover how plants affect the movement of water in a watershed, and ④ describe how plants are important in maintaining water quality; Grades 4-8; Science, Language Arts, Physical Education.

ELA: B.4.1

EE: B.4.7, B.8.17

S: E.4.6, E.8.1, E.8.4, F.4.4, F.8.8

#### We All Need Trees

Students will ① examine various products and determine which ones are made from trees, ② describe ways that trees are used to make products and ways that these products can be conserved, and ③ explore methods for recycling and reusing products; Grades 4-6; Social Studies, Science, Language Arts.

ELA: A.4.4, A.8.4 EE: B.4.10, E.4.1

S: E.4.8

#### We Can Work It Out

Students will 1 develop solutions to a land-use problem involving urban open space and 2 simulate a city council meeting to discuss and decide on a land-use issue; Grades 5-8; Social Studies, Language Arts, Visual Arts.

ELA: C.8.1

EE: D.8.1, D.8.2, D.8.7, D.8.8

55: C.8.3, C.8.7

#### Web of Life

Students will ① collect information about various organisms in an ecosystem, ② create a mural that depicts the interdependence of various organisms with other components in an ecosystem, and ③ create a simulated web of life using a ball of string; G Grades 4-8; Science, Language Arts, Visual Arts.

ELA: F.4.1, F.8.1 EE: B.4.4, B.8.8

S: F.4.1, F.4.2, F.4.4, F.8.9

#### Where Are the Cedars of Lebanon?

Students will 0 investigate how ancient civilizations used natural resources and affected the environment and 0 apply environmental lessons learned in the past toward solving current environmental problems; Grades 6-8; Social Studies, Science.

EE: B.8.9, B.8.10, B.8.12, B.8.17

S: E.8.6, F.8.8

SS: A.8.8, B.8.2, B.8.4

#### Who Works in this Forest?

Students will ① explore a variety of jobs that are directly related to forest resources and ② describe how various professionals work together to care for forests; Grades 3-6; Science, Social Studies.

EE: B.4.11, B.8.22 SS: A.4.4, D.4.4