



The Learning Community!



Introduction

DISCOVER what makes your school and your school grounds special as a learning community! Students will explore the different areas of your school and help make improvements.

This investigation will help your team identify improvements for your school grounds, and ideas to help local wildlife, flora and fauna, the school community, and your neighborhood, city, state, country and world.

Your results will inform school staff and students where they can make improvements and to also generate an action plan.

Objectives

- Students will explore and identify factors that create a healthy and safe outdoor school environment.
- Students will investigate and explore how the schoolyard can be used as a learning resource.
- Students will evaluate the habitats within their school grounds and other outdoor learning areas.
- Students will explore the school's use of learning opportunities that expand their learning community beyond their school grounds.
- Students will learn about the best approaches to manage the different learning communities in their school grounds and why it is important to adopt sustainable practices.
- Students will generate a plan to help improve the quality of their learning communities.
- As approval, time and funding permit, students will implement one or more of their improvement strategies.

Time Requirement

The Learning Community will take several 45 minutes sessions to complete, depending on the documentation available, and help from supporting school staff. Be sure to gather all of the needed supplies and documents ahead of time.

Documents and Supplies

- Any written policies your school has related to your school ground habitat management practices.
- The Learning Community Investigation

Learning Community Investigation Overview

1. Creating a School Map
2. A Look at Our School Building
3. A Look at the School Grounds
4. School Site Assessment
5. Calculating the Value of Trees
6. Green Hour Assessment
7. Global Connections
8. Curriculum and Community
9. Action Planning (School based recommendations)



Middle – High School Site Investigation: School-Wide Survey

This School Site Investigation will help you learn more about the many factors that create a healthy and safe outdoor environment for your school grounds. The investigation will help you identify current management practices for the school’s grounds and start you thinking about ways to modify these practices to make them more environmentally friendly and sustainable. Sustainable practices are those that meet the needs of the present without compromising the ability of future generations to meet their needs.

School Name: _____ **Date:** _____

Conducted By:

(Please include administrators, teachers, school staff, students, and parents involved in this investigation)

Name

Title/Role

School Population

Students: _____

Staff: _____

Part 1: Creating a School Map

1. Make a map of your school site. First look for any existing site maps, aerial photographs, or blueprints that can be used as a base map. If you can't find any of these, you will have to make your own map. The following website may be helpful: (<http://earth.google.com/index.html>). Include the school building, sidewalks, roads, fences, trails, parking areas, utilities, and all of the green spaces. Examples of green spaces include courtyards, grassy areas, athletic fields, gardens, wooded areas, and so forth. The map will help you study your school grounds and plan for improvements.
2. Using your map, assess the pervious and impervious areas of the school grounds. (**Pervious** means that rainwater can percolate through the surface, for example grassy areas, natural athletic fields, and other green spaces. Pervious areas replenish the ground water table and reduce storm runoff. **Impervious** surfaces do not allow rainwater to pass into the ground and increase storm water runoff. Examples of impervious areas include asphalt, concrete, sidewalks, paved courts yards, paved driveways, and parking lots.)
 - a. List the pervious areas:
 - b. List the impervious areas:
 - c. Approximately what percentage of your school site is **pervious**? _____
 - d. Approximately what percentage of your school site is **impervious**? _____

Part 2: A Look at Our School Building

1. When was your school built? (Include dates for major additions and remodeling projects) _____
2. What is the square footage of your school building? _____ sq. ft.
3. Besides your main building, does your campus have additional building structures?
 - Yes
 - NoIf yes, please list: _____

4. What other features that are used for learning are found on your school site? (e.g. outdoor classrooms or learning spaces, athletic fields or courts, weather stations, gardens, wooded areas, prairies, vacant areas, etc.)

Part 3: A Look at the School Grounds

- Where is your school located?
 - In the town or city limits
 - In the country
- What type of land borders your school grounds (for example, residential, agricultural, natural, commercial, or industrial)?
North _____ East _____
South _____ West _____
- Where does water that runs off the school's roof, parking lots, and grounds go?
 - Storm drain
 - Retention pond
 - Rain Harvesting System (rain barrels, rain boxes, rain silos, etc.)
 - Recessed grassy areas
 - Drainage ditch
 - Rain garden
 - Natural pond, stream, or wetland
- Does your school or classrooms keep a log for wildlife/animals regularly seen on your school grounds?
 - Yes
 - No
- Does your school contain all four wildlife habitat requirements (food, water, shelter, places to raise young?). Check examples that apply.
 - Houses (Bird, Bat, etc.)
 - Gardens (Butterfly, Vegetable, Cultural, etc.)
 - Feeders
 - Water
 - Other: _____

6. What areas does your school use for outdoor study on the school grounds?
7. What areas does your school use for recreational use on the school grounds?
8. Are there quiet, shaded places to sit and talk?
 - Yes
 - No
9. Are there murals, mosaics or other artworks?
 - Yes
 - No

10. Which green spaces are present on your school grounds and who uses them?
(Complete all sections that apply)

Green Spaces	Present	Classes &/or Grades Levels	Student Athletics (Duration & Description of Use)	Independent Student Use (Duration & Description of Use)	Instructional Use (Duration & Description of Use)	School Clubs (Duration & Description of Use)	Community Use (Duration & Description of Use)
Sample: Lawn	Yes	All Grades (9-12)	Basketball & Volleyball (Practice) Approx. 4 hours per week	Yes (Before and After School Release point Approx. 4 hours per week)	Yes (Biology Science Instruction) Approx. 3 hours per week	Safety Patrol (Meetings) Approx. 2 hours per week	Yes (Weekend basketball) Approx. 12 hours per week
Courtyard							
Athletic Field							
Garden							
Lawns							

Prairie							
Vacant Area							
Aquatic Area							
Wooded Area							
Outdoor Learning Area							

Part 4: School Site Assessment

a. **Lawns** (Complete if applicable.)

1. Are pesticides used on the lawn?

- Yes
- No

2. Is Integrated Pest Management (IPM) used in place of pesticides?

(According to the National IPM Network, Integrated Pest Management is a sustainable approach to managing pests by combining biological, cultural, physical and chemical tools in a way that minimizes economic, health, and environmental risks.)

- Yes
- No

3. Are chemical fertilizers used on the lawn?

- Yes
- No

4. Are leaves raked off the lawn in the fall?

- Yes
 No

If yes, what happens to them? _____

What types of animals are found on the lawns of your school grounds? Use this survey that is divided into the different classes of animals.

School Lawn Wildlife Survey

	Common Name: <i>(Example)</i> Eastern Woodrat	Common Name:	Common Name:	Common Name:	Common Name:
Mammals					
Order:	<i>Rodentia</i>				
Genus:	<i>Neotoma</i>				
Species:	<i>floridana</i>				
Identifying Features:	<i>Its tail is not very hairy!</i>				
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Birds					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Reptiles					
Order:					
Genus:					
Species:					
Identifying Features:					

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Amphibians</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features:					

5. What changes would you recommend to make the lawn areas more inviting, useful, safe, or environmentally sound?

b. Courtyards (Complete if applicable.)

1. What type(s) of vegetation is found in your courtyard?

- Mowed grass
- Flowers
- Tall grass
- Trees
- Other: _____

2. What activities take place in the courtyards?

- Studying
- Meetings
- Eating
- Observing wildlife
- Other:

3. What items are present in the courtyards?

- Benches
- Ponds
- Tables
- Bird feeders
- Other: _____

School Courtyard Wildlife Survey- what types of animals are found in the courtyard?

	Common Name: <i>(Example)</i> Eastern Woodrat	Common Name:	Common Name:	Common Name:	Common Name:
Mammals					
Order:	<i>Rodentia</i>				
Genus:	<i>Neotoma</i>				
Species:	<i>floridana</i>				
Identifying Features:	<i>Its tail is not very hairy!</i>				
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Birds					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Reptiles					
Order:					
Genus:					
Species:					
Identifying Features:					

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Amphibians</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features:					

4. Is the courtyard being managed in an environmentally sound way?
(Environmentally sound management means that the area is being managed with minimal use of pesticides or other chemicals that may be harmful to humans and wildlife.)

- Yes
 No

5. What can be done to make the courtyards more inviting, useful, safe, or environmentally sound?

c. Athletic Fields (Complete if applicable.)

1. Are pesticides used on the athletic fields?

- Yes
 No

2. Is Integrated Pest Management (IPM) used in place of pesticides?

(According to the National IPM Network, Integrated Pest Management is a sustainable approach to managing pests by combining biological, cultural, physical and chemical tools in a way that minimizes economic, health, and environmental risks.)

- Yes
- No

3. Are chemical fertilizers used on the athletic fields?

- Yes
- No

4. Are the grass clippings left on the athletic fields to increase moisture retention and lessen the need for watering?

- Yes
- No

If no, what happens to them? _____

5. What types of animals are found on the athletic fields?

- Mammals: _____
- Birds: _____
- Reptiles: _____
- Amphibians: _____
- Invertebrates: _____
- Other species: _____

6. What can be done to make the athletic fields more inviting, useful, safe, or environmentally sound?

d. Gardens (Complete if applicable.)

1. What type(s) of garden(s) does your school have?

- Butterfly
- Vegetable
- Rain
- Fruit
- Historical
- Herb
- Flower
- Wildlife
- Specialty (for example, gardens with all the fixings for pizzas, tacos, etc)

2. How are any products from the school garden used?
- Left in garden for all to enjoy
 - Given to cafeteria for lunches
 - Sold to school and community members
 - Donated to local food pantry
 - Other _____

School Garden Wildlife Survey- What types of animals are found in the gardens?

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Mammals</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Birds</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Reptiles</i>					
Order:					
Genus:					
Species:					
Identifying Features:					

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Amphibians</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features:					

3. What can be done to make the gardens more inviting, useful, safe, or environmentally sound?

e. Prairie (Complete if applicable.)

1. What type of prairie does your school have?

Tall grass

Savanna

Short grass

Other: _____

2. How is your prairie maintained?

Burning

Pruning

Not maintained

Mowing

Other: _____

School Prairie Wildlife Survey- What types of animals are found in the prairie?

	Common Name: <i>(Example)</i> Eastern Woodrat	Common Name:	Common Name:	Common Name:	Common Name:
Mammals					
Order:	<i>Rodentia</i>				
Genus:	<i>Neotoma</i>				
Species:	<i>floridana</i>				
Identifying Features:	<i>Its tail is not very hairy!</i>				
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Birds					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Reptiles					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Amphibians					
Order:					
Genus:					
Species:					
Identifying Features:					

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features:					

3. What can be done to make the prairie more inviting, useful, safe, or environmentally sound?

f. Vacant Area (Complete if applicable.)

1. What types of plants are found here?

- Grasses
- Non-native grasses
- Shrubs
- Flowering plants
- Trees
- Other: _____

Vacant Area Wildlife Survey- What types of animals are found here?

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Mammals</i>	(Example) <i>Eastern Woodrat</i>				
Order:	<i>Rodentia</i>				
Genus:	<i>Neotoma</i>				
Species:	<i>floridana</i>				
Identifying Features:	<i>Its tail is not very hairy!</i>				

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Birds</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Reptiles</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Amphibians</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features:					

2. What can be done to make the vacant area more inviting, useful, safe, or environmentally sound?

g. Aquatic Areas (Complete if applicable.)

1. What types of aquatic communities are found on your school site?

- Lake
- River
- Marsh
- Pond
- Stream
- Ditch
- Other: _____

Aquatic Wildlife Survey- What type of animal life is found in or near the water on your school grounds?

	Common Name: <i>(Example)</i> Eastern Woodrat	Common Name:	Common Name:	Common Name:	Common Name:
Mammals					
Order:	<i>Rodentia</i>				
Genus:	<i>Neotoma</i>				
Species:	<i>floridana</i>				
Identifying Features:	<i>Its tail is not very hairy!</i>				
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Birds					
Order:					
Genus:					
Species:					
Identifying Features:					

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Reptiles</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Amphibians</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features:					

2. What facilities have been placed in aquatic communities to make them better for teaching?

- Trails
- Decks
- Signs
- Boardwalks
- Piers
- Other: _____

3. What can be done to make the aquatic areas more inviting, useful, safe, or environmentally sound?

h. Wooded Areas (Complete if applicable.)

1. What types of trees are found in the wooded areas?

- Deciduous
- Coniferous

2. Are the trees native?

- Yes
- Some
- No

3. What types of vegetation grow under the trees?

- Short trees
- Grass
- Moss
- Shrubs
- Ferns
- Flowering plants

4. What facilities have been placed in the woodlands to make them better for teaching?

- Trails
- Signs
- Shelters
- Benches
- Other: _____

Wooded Area Wildlife Survey- What types of animals are found in the wooded areas?

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Mammals	<i>(Example) Eastern Woodrat</i>				
Order:	<i>Rodentia</i>				
Genus:	<i>Neotoma</i>				
Species:	<i>floridana</i>				
Identifying Features:	<i>Its tail is not very hairy!</i>				

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Birds</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Reptiles</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Amphibians</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features					

5. What can be done to make the woodlands more inviting, useful, environmentally sound or safe?

i. Outdoor Learning Area (Complete if applicable.)

1. What types of vegetation are found in the outdoor learning area?

2. Is the vegetation native to our area?

- Yes
- Some
- No

3. What facilities have been placed in the outdoor learning area to make it better for teaching?

- Benches
- Shelter
- Other: _____

Outdoor Learning Wildlife Survey- What types of animals are found in the outdoor learning area?

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Mammals	(Example) Eastern Woodrat				
Order:	Rodentia				
Genus:	Neotoma				
Species:	floridana				
Identifying Features:	Its tail is not very hairy!				

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Birds</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Reptiles</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Amphibians</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features					

7. What types of management activities have been done in the school forest?

- Harvesting trees
- Planting trees
- Pruning trees
- Other _____

8. What facilities are available at the school forest? (check all that apply)

- Parking lot
- Rest rooms
- Pond
- Nature trails
- Drinking water
- Stream
- Service road
- Teaching stations
- Nature center
- Skills course
- Other: _____

School Forest Wildlife Survey- What animals live in the school forest?

	Common Name: <i>(Example)</i> Eastern Woodrat	Common Name:	Common Name:	Common Name:	Common Name:
Mammals					
Order:	<i>Rodentia</i>				
Genus:	<i>Neotoma</i>				
Species:	<i>floridana</i>				
Identifying Features:	<i>Its tail is not very hairy!</i>				
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
Birds					
Order:					
Genus:					
Species:					
Identifying Features:					

	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Reptiles</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Amphibians</i>					
Order:					
Genus:					
Species:					
Identifying Features:					
	Common Name:	Common Name:	Common Name:	Common Name:	Common Name:
<i>Invertebrates</i>					
Order:					
Genus:					
Species:					
Identifying Features:					

9. Is the school forest open to the public?

- Yes
 No

10. What can be done to make the School Forest more inviting, useful, safe, or environmentally sound?

Part 6: Green Hour Assessment

Students and staff will assess the current amount of time spent outside (“Green Hours”) both during and after school. Time spent outdoors will be collected and recorded.

Use this worksheet to help you prepare a Green Hour Action Plan. Have students and staff answer the questions below. If your school population is more than 500 students go to at least 50% of your school’s classrooms to answer the assessment. After you complete the Classroom Assessment, complete the School Assessment.

Green Hour Classroom Assessment Worksheet

Classroom #:	Teacher:	
Grade Level:	Subject:	
Total # in Class (Students & Staff):	Date of Assessment:	
Estimate how many hours per week students and staff spend outside doing school-related activities:		Calculate the average amount of time per week students and staff spend outside doing school-related activities:
Service Learning:	_____ hrs.	_____ hrs.
Outdoor physical education:	_____ hrs.	_____ hrs.
Walking to/from school:	_____ hrs.	_____ hrs.
Classes outside:	_____ hrs.	_____ hrs.
Outdoor field trips (zoo, nature center, etc.)	_____ hrs.	_____ hrs.
Outdoor sports practice:	_____ hrs.	_____ hrs.
After-school outdoor activities (school-sponsored, not sports team)	_____ hrs.	_____ hrs.
Additional time spent working in the schoolyard habitat or taking care of the school’s gardens:	_____ hrs.	_____ hrs.
Other: (please describe, in addition to the # of hours)	_____ hrs.	_____ hrs.
	_____	_____
	_____	_____
	_____	_____
	_____	_____



Green Hour Student and Staff Assessment Worksheet

Estimate how many hours per week students and staff spend outside when they are not at school:		Calculate the average amount of time per week students and staff spend outside doing when they are not at school:
Dog walking:	_____ hrs.	_____ hrs.
Outside jobs:	_____ hrs.	_____ hrs.
Playground time:	_____ hrs.	_____ hrs.
Park time:	_____ hrs.	_____ hrs.
Yard work:	_____ hrs.	_____ hrs.
Walking to do errands:	_____ hrs.	_____ hrs.
Family walks:	_____ hrs.	_____ hrs.
Playing in the backyard/neighborhood:	_____ hrs.	_____ hrs.
After-school outdoor activities/sports (not school-sponsored)	_____ hrs.	_____ hrs.
Other (please describe, in addition to # of hours):	_____ hrs.	_____ hrs.
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	

Part 7: Global Connections

1. Have the students had an opportunity to interact with students living in other parts of the country and/or around the world?
 - Yes
 - NoIf so, how:

2. Do students acknowledge and celebrate cultural differences among their own classmates?
 - Yes
 - NoIf so, how:

3. Are the opportunities for considering global environmental issues maximized in the curriculum?
 - Yes
 - NoIf so, how:

4. What materials does the school use to enhance opportunities to learn about global issues?

5. Have students considered other global issues, such as:
 - Human rights and ethics
 - Fair trade
 - Conflict resolution
 - Environmental justice
 - Availability or use of natural resources in other countries
 - Other:

6. Has the school encouraged and provided opportunities for students to:
 - Volunteer their time
 - Engage in service learning
 - Learn about the political process
 - Involve themselves in the community
 - Other:

7. Additional Comments:

Part 8: Curriculum and Community

1. Does your school have a landscape management/natural resources plan for the school grounds?
 Yes, when was it developed? _____
 No
2. Has your school received any grants related to outdoor school site use and development?
 Yes
 No
3. Are outdoor areas adequately used for education?
 Yes
 No

If no, how could outdoor areas be used to teach certain concepts and how could you encourage new uses? (For example, concepts that might be taught outside include measurements, weather, plant growth, plant identification, animal identification and habitats, erosion, pollution, poetry, and so forth.)

4. Does your school use any nearby natural areas for education?
 Park
 Stream
 Wetland
 Nature Center
 School Forest
 Other: _____
5. Does your school have a student-monitored garden on school property?
 Yes
 No
6. How many school-sponsored outdoor field trips does your school host per year? _____
7. Has your school implemented wellness policies that address nutrition and physical activity?
 Yes
 No



Part 9: Action Planning

Based on the information you found out from this investigation, what recommendations do you have for the school to improve your school’s Learning Community?

What additional information from your investigation did you find that might have implications for developing for your action plan:

To develop your action plan, consider the following questions:

- Does your school maximize outdoor areas for wildlife and student/staff uses (learning, recreation, sports, eating lunch, taking a break, etc).
- Are you school grounds managed in ways that maximize their potential to be inviting, safe, healthy and environmentally sustainable?
- How does your school expand the boundaries of your learning community to include the broader community, region, state, country and world?
- How can you engage the broader school and community in your action plan?
- What are some potential strategies you might use to address those areas where your Green Team would like to make improvements?
- What resources (including funding) will your school need to implement strategies and where might your school obtain these resources?
- How can you engage students, school personnel, parents and community in helping to develop and implement these strategies?

