



# SCHOOLYARD HABITATS<sup>®</sup>

## GETTING STARTED, GRADES 3-5

The data and all evidence, including notes, photographs, sketches, calculations, audits, action plans, etc. need to be organized and kept in a location that is easily accessible to the Eco-Action Team. We recommend a binder, file or Google folder system. The documentation is very important and will be used:

- To inform decisions,
- To engage the community,
- As evidence to support conclusions and action plans
- To update the schools Eco-Schools USA dashboard, and
- To apply for awards.

### LEARNING OBJECTIVES

This audit will help the Eco-Action Team investigate the schoolyard's potential for wildlife habitat and gather data that will be used as a basis for improving native wildlife habitat, outdoor experiences and learning on the school grounds.

Students will

- Investigate how the school grounds are utilized.
- Collect, record and analyze schoolyard habitat(s) data.
- Identify ways to green school spaces and ways to increase native wildlife and overall biodiversity.
- Increase use of the school grounds as a tool for interdisciplinary learning, service and stewardship.

### INTERDISCIPLINARY CONNECTIONS

Citizenship | Engineering | Language Arts | Geography | Mathematics | Science | Technology

### ECO-SCHOOLS USA PATHWAY CONNECTIONS

Biodiversity | Climate Change | Energy | LEAF | Healthy Living | Healthy Schools | Water |  
WOW-Watersheds | WOW-Wetlands

### METRICS NEEDED FOR AWARDS

1. How many square feet of wildlife habitat does your school maintain?
2. What are the average number of minutes students/classes spend in the garden or in outdoor learning spaces each week?



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## UN'S SUSTAINABLE DEVELOPMENT GOALS (GLOBAL GOALS) CONNECTIONS

<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>



### ARE YOU A GLOBE SCHOOL?

The Global Learning and Observations to Benefit the Environment (GLOBE) Program is an international science and education program that provides students and the public worldwide with the opportunity to participate in data collection, the scientific process, and contribute meaningfully to our understanding of the Earth system and global environment. Learn more >> <http://www.nwf.org/Eco-Schools-USA/GLOBE.aspx>

Below are protocol connections to the Schoolyard Habitats audit (optional field investigations, but optional). There are elementary versions of GLOBE materials and protocols that can be modified, as needed for students in grades 3-5, <https://www.globe.gov/web/elementary-globe>.

#### Atmosphere Protocols

Air Temperature | Clouds | Precipitation |  
Surface Temperature

#### Pedosphere Protocols

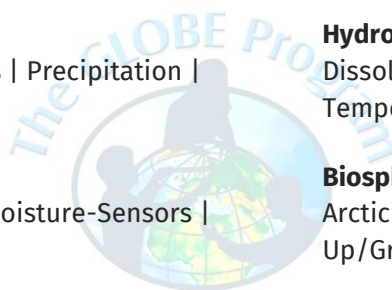
pH | Soil Fertility | Soil Moisture-Sensors |  
Soil Temperature

#### Hydrosphere Protocols

Dissolved Oxygen | pH | Nitrates | Water  
Temperature

#### Biosphere Protocols

Arctic Bird Migration | Carbon Cycle | Green  
Up/Green Down | Ruby-Throated Hummingbird





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### MATERIALS

audit forms | science notebook | clip boards | tape measures | map of your school grounds | stakes or utility flags | regional or state-specific field guides | soil testing kits (NPK and pH) | ozone test strips | air temperature thermometers | soil thermometers | water temperature thermometers | water testing kits (optional)

### PROCEDURE

1. Before performing the audit, take students outside for a site walk to familiarize them with all aspects of the school grounds and how they are used.
2. Set aside time to complete the audit. The baseline audit can be completed anytime of the year when the ground is not frozen, but ideally when you have first to full bloom. The post audit does not need to be completed at the same exact time of year, but close enough to be representative of the baseline audit. It is up to the Eco-Action Team if they want to collect data on just one portion of the school grounds or on the full site. Time required will depend upon how large the area is being studied.
3. Look for existing maps or aerial photographs of your school grounds. Ask your school administration if there are existing site maps available or students can develop maps by drawing.
4. Develop a base map that teams/classes will use to show site specifics, such as learning and data collection areas.
5. Conduct the baseline/post-action audit.
6. Analyze the results and report the findings to the school community.
7. Formulate an action plan (baseline audit) or next steps (post-action audit) and be sure to monitor and evaluate along the way.