SCHOOLYARD HABITATS®

POST-ACTION AUDIT, GRADES K-2

The Schoolyard Habitats audit was developed as a tool for students to investigate the school ground's use and to be used as the basis for improving native wildlife habitat and outdoor learning on the school site.

Did the class/team work with any resource specialists and/or volunteers ◯ Yes ◯ No
Please list.

_____

_____

Once again survey the team/classes. Record the average response. On a scale of 1-10, where 1 is least important and 10 in most important, how important is:

1. Wildlife to my community? _____
2. It to plant native plants versus non-native plants? _____

METRICS REQUIRED FOR DASHBOARD

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

TABLE 1. DEFINING THE STUDY SITE

1. Confirm the GPS coordinates for the Schoolyard Habitat® study site? Use your smart phone's GPS or go to: http://www.whatsmygps.com/ to find the site's coordinates.	Latitude N _____ Longitude W _____
2. If land use types surrounding the study site changed in any way from the baseline to the post-action audit, record it here? Check all that apply.	☐ Residential ☐ Commercial ☐ Park ☐ Undeveloped Land ☐ Other ☐ No changes
3. Is the school now or in the process of certifying as a National Wildlife Federation Schoolyard Habitat®?	Yes ◯ No ◯

TABLE 2. TOPOGRAPHY

Using the same elements from the base map created in the baseline audit, have students update and make modifications based on new learning and understanding as well as, identifying new structures, man-made or natural, habitat expansions, etc. As a reminder, the original chart is provided below. Choose one student or team map and insert it as a .jpg or .png file below.

1. School building	2. Man-made structures other than the school building	3. Location of hills and valleys
4. Rainfall or sprinkler run-off paths and low lying areas that hold water	5. Sprinkler systems, storm drains, or sewer markers	6. Existing natural areas
7. Trees	8. Areas of full sun and full shade	9. Natural and man-made walkways
10. Cardinal directions	11. Key	

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Think about the following questions as you summarize the information in Table 2.

1. Were any changes to the landscape required? Explain.

TABLE 3. TEMPERATURE AND PRECIPITATION

1. For today's date, collect the weather data listed to the right. Use your local weather website, application or use the following: • http://www.weatherbase.com/weather/state.php3?c=US • www.weather.com	_____ Temperature in degrees Fahrenheit _____ Precipitation in inches
2. In what season is data being collected?	☐ Summer ☐ Fall ☐ Winter ☐ Spring
3. Since the baseline audit, how much rain has the study site received?	_____ inches

Think about the following question as you summarize the information in Table 3.

1. How has student understanding changed from the baseline audit to the post-action audit in relation to weather's impact on plants and animals (both positive and negative)?

TABLES 4 and 5. Consider contacting a habitat steward, parks department, college or university, or local gardening/native plants non-profit. Their involvement is a great way to connect to the community, inspire students, demonstrate career possibilities and share resource expertise.

Invite parents and community members to participate in the auditing process. Students can take on the role of educator by working with volunteers on citizen science. This experience is a great way to build community.

TABLE 4. SOIL

1. Soil Temperature	2. Soil pH
Test 1 _____ °F _____ °C Test 2 _____ °F _____ °C Test 3 _____ °F _____ °C	Test 1_____ pH level Test 2 _____ pH level Test 3 _____ pH level ◯ Acidic ◯ Neutral ◯ Basic

3. Nitrogen (optional)	4. Phosphorus (optional)	5. Potassium (optional)
Test 1 ◯ low ◯ medium ◯ high	Test 1 ◯ low ◯ medium ◯ high	Test 1 ◯ low ◯ medium ◯ high
Test 2 ◯ low ◯ medium ◯ high	Test 2 ◯ low ◯ medium ◯ high	Test 2 ◯ low ◯ medium ◯ high
Test 3 ◯ low ◯ medium ◯ high	Test 3 ◯ low ◯ medium ◯ high	Test 3 ◯ low ◯ medium ◯ high

TABLE 5. WATER QUALITY (OPTIONAL-CONDUCT IF APPLICABLE)

1. Water Temperature	2. Water pH
Test 1 _____ °F _____ °C Test 2 _____ °F _____ °C Test 3 _____ °F _____ °C	Test 1_____ pH level Test 2 _____ pH level Test 3 _____ pH level ◯ Acidic ◯ Neutral ◯ Basic

3. Is it raining or has it rained in the last 24 hours? Stormwater runoff from surrounding areas can impact habitat health and appearance, including temperature and pH.	◯ Yes ◯ No

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Think about the following questions as you summarize the information in Table 4 and 5.

1. How has student understanding about soil and water changed?
2. What changes, if any have been documented when comparing the baseline and post-action audits?
3. What is one action the team/class took to improve soil and water quality?

TABLE 6. WILDLIFE – GENERAL

1. Are there animals present at the study site today?	◯ Yes ◯ No
2. Check the families of animals observed at the study site, then continue to Chart 1. Animal Observations	☐ amphibians ☐ birds ☐ fish ☐ insects ☐ mammals ☐ reptiles
3. What evidence of wildlife was observed at or around the study site? Check all that apply.	☐ feathers ☐ nest(s) ☐ animal tracks ☐ burrows/ground dwellings ☐ scat _____ other
4. Plants are a source of food for many different types of wildlife. Food sources are also a required habitat element. How many different types of plants did students observe?	____ trees ____ shrubs/bushes ____ flowers ____ grasses/fungi/mosses

Think about the following questions as you summarize the information in Table 6.

1. How has student understanding changed? Have more plants and animals been identified or observed during this audit?
2. Have students made connections between the abundance of food sources and numbers of animals present?

CHART 1. HABITAT ELEMENT – WATER

1. Are there water sources on the school site?	◯ Yes ◯ No
2. Does the site have seasonal pools of water (vernal pools)? Vernal pools are important nurseries for many amphibian species.	◯ Yes ◯ No ◯ Unsure
3. Since the baseline audits were any manmade water features added?	☐ bird baths ☐ rain garden(s) ☐ ponds ☐ puddling containers _____ other

Think about the following questions as you summarize the information in Chart 1.

1. Briefly explain what's changed since conducting the baseline audit?
2. Have students observed wildlife at the new, expanded or modified water features?

CHART 2. HABITAT ELEMENT – COVER

1. Our school provides places for wildlife to find cover from the weather and predators. (brush piles, rock walls, dense vegetation, trees)	◯ Yes ◯ No
2. How many sources of available cover on the school site.	_____ natural cover sources
3. How many manmade structures provide cover for wildlife such as bird houses, toad houses, bat house, bug houses, etc.	_____ manmade cover sources

Think about the following questions as you summarize the information in Chart 2.

1. Briefly explain what's changed since conducting the baseline audit?
2. What have student's learned about wildlife's need for cover and its importance as a habitat element?

CHART 3. HABITAT ELEMENT – PLACES TO RAISE YOUNG

1. Our school provides places for wildlife to raise their young.	◯ Yes ◯ No
2. How many natural sources of available places for wildlife to raise their young on the school site (host plants for larvae, trees/bushes for nests, water features for amphibians, etc.).	_____ natural structures
3. How many manmade structures provide places for wildlife to raise young such as bird houses, bat houses, etc. There may be similarities between Chart 2 and 3.	_____ manmade structures

Think about the following question as you summarize the information in Chart 3.

1. Briefly explain what's changed since conducting the baseline audit?

CHART 4. OTHER HABITAT CONSIDERATIONS

1. Check all that apply. What types of sustainable practices are used on the school site?	☐ organic fertilizers and herbicides ☐ mulching ☐ remove invasive species ☐ xeriscaping ☐ drip irrigation ☐ native plants ☐ compost ☐ reduced lawn _____ other
2. Does the school site include vegetable, fruit and/or herb gardens?	◯ Yes ◯ No
3. Does the school site include pollinator gardens?	◯ Yes ◯ No
4. Are the school grounds used for teaching and learning?	◯ Yes ◯ No
5. Does the garden(s) meet the American with Disabilities (ADA) accessibility standards?	◯ Yes ◯ No ◯ Unsure
6. Does the garden(s) include interpretive signage that is multi-lingual?	◯ Yes ◯ No
7. Are there existing places/structures on the school site that serve as an outdoor classroom where students can gather, listen, talk and learn?	◯ Yes ◯ No

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Think about the following questions as the Eco-Action Team/classes summarize the information from the above charts and tables:

1. Are students more engaged in what is happening on the school grounds?
2. If the site did not contain the five wildlife habitat requirements in a natural urban, suburban or rural setting – food, water, cover, places to raise young, and a healthy, sustainable habitat and practices, can they now be identified?
3. Did students plant a food or pollinator garden? How did the community get involved?
4. Share an example of how the habitats are used?

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Review of All Data

1. Based on what is known and has been learned, explain how the data helped facilitate the building and/or expansion of the Schoolyard Habitat®.
2. Explain any **patterns** observed during investigations on the school grounds.
3. What role did **systems and using system models** play in increasing student understanding how a wildlife habitats functions?