Conducting the Biodiversity Audit

BEFORE, DURING AND AFTER THE AUDIT, GRADES K-2

BEFORE

BE PREPARED

- Read through this document, the baseline audit and the post-action audit.
- Invite community experts to participate.
- Gather science tools (if applicable) and print materials.
- Conduct mini-lessons (if needed) to strengthen concept foundation.

ENDURING UNDERSTANDING

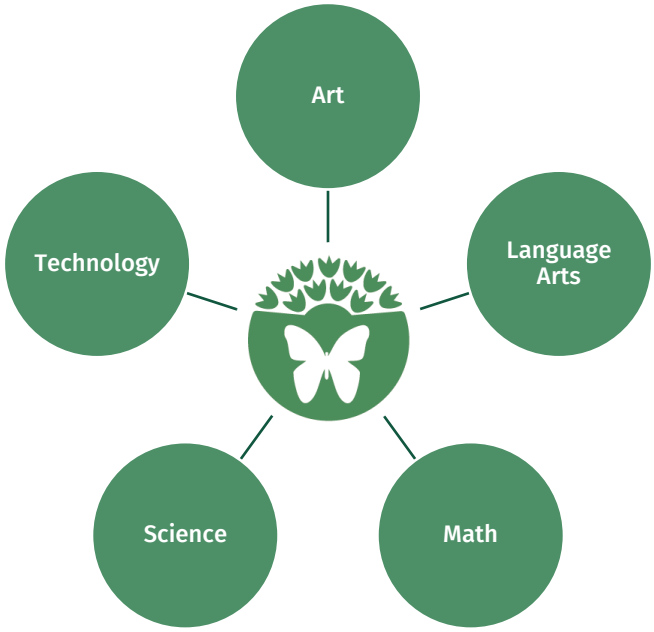
1. All living organisms have certain needs that allow them to survive.
2. It is important for a habitat to include many different types of plants and animals.
3. People impact biodiversity in either positive or negative ways.

COMMUNITY AND CULTURE

- The loss of cultural diversity (including languages) and traditional knowledge -- of farm communities and indigenous cultures -- is intricately linked to the loss of biological diversity. Indigenous peoples and farming communities are the creators, custodians and continuing innovators of biological knowledge and resources. [1]
- Almost 75% of the world's poor are affected by land degradation. [2]
- Cultural diversity is a source for learning sustainable practices.
- Intercultural dialogue should be a guiding principle in developing solutions, raising awareness and promoting action.
- Create an equitable, inclusive and safe space for Eco-Action team members and others within and outside of the school community to participate.

INTERDISCIPLINARY CONNECTIONS

- **Language Arts –** Frequently take students outside to read picture books based on animal habitats, pointing out the diversity of plant and animal life. Encourage students to use nature to inspire creative writing efforts.
- **Math –** Seasonally and/or after weather events take students outside to conduct plant and animal counts. Look near the soil surface, under rocks, around the base of trees, on the sidewalk, up in the trees or on ledges. Keep tallies all year long and help students create visualizations, such as charts, graphs and simple infographics.
- **Technology –** Use nature-based applications to identify and track plant in and animals using the school's garden space(s), i.e. iNaturalist, Seek and eBird.
- **Art –** With a clipboard, 5x7 canvas, watercolors, water cups and paper towels, set students in the garden or the sidewalk, anywhere in or near nature. Have them paint what they see, what they hear, what they feel. Let nature flow through their fingers to the canvas.



SUSTAINABLE DEVELOPMENT GOALS

In 2016, seventeen Global Goals for Sustainable Development were adopted by world leaders at a United Nations Summit. These goals universally apply to all countries, therefore Eco-Schools USA is committed to doing our part. Over the next fifteen years, efforts will be made by governments, institutions and citizens all across the globe to end all forms of poverty, fight inequalities and tackle climate change, while ensuring nobody is left behind.

Conserve and sustainable use the oceans, seas and marine resources for sustainable development.

Protect, restor and promote sustainable use of terrestrail ecosystems, sustainably manage forests, combat desertification and halt and revers land degradation hand biodiversity loss.

Learn more at globalgoals.org

DURING

GATHER THE FOLLOWING MATERIALS

- student worksheet(s)
- audit form
- clip boards
- school map – outside
- measuring tape (50m)
- stakes and flags
- 1/16 cotton twine rope
- binoculars (8-10 pairs)
- iNaturalist application (optional)
- lumiloupe magnifiers (per student pair) (optional)
- plastic forceps (per student pair)

PROCEDURE

1. Before the audit, contact local experts who are willing to assist. These individuals can provide more in depth understanding and can help direct the team when questions arise and/or concerns arise.
2. Read through the audit. As an Eco-Action Team determine, based on the area being investigated, how much time will be needed to complete the baseline or post-action audit.
3. Highlight the locations on a school map where teams will collect data.
4. Conduct the baseline audit and make plans to conduct the post-action audit.
5. Analyze the results and develop an action plan.
6. Frequently communicate results and plans with the school and community.

AFTER

1. NEXT STEP: DEVELOP AN ACTION PLAN

Move into Step 3 of the Seven Step Framework by using the audit results to develop an action plan.

Identify community leaders, experts, advocacy organizations who can assist students with solution implementation and advise the Eco-Action Team how to address issues of social justice.

2. UPDATE YOUR DASHBOARD

Login to the school's dashboard and complete the following tasks.

- Upload your audit results and your action plan.
- Add any related photos or videos.
- After completing the post-action audit and moving through the Seven Step Framework apply for an award.

3. RANGER RICK, A MENTOR FOR TODAY'S KIDS

Ranger Rick, the National Wildlife Federation's friendly raccoon, helps children of all ages discover and connect with nature so they become good stewards of the environment.

- Ranger Rick Jr. for ages 4-7, classroom subscriptions
- Ranger Rick Photo Contest
- Ranger Rick Zoobooks

4. NEXT PATHWAY

Climate Change Pathway –
Climate change is any significant change in climate lasting for an extended period of time and includes major changes in temperature, precipitation, or wind patterns, among other effects that occur over several decades or longer. School communities can mitigate their carbon footprint and improve their buildings resilience.

Schoolyard Habitats® Pathway –
Water is a critical habitat element and plays an important role in the preparation, implementation and maintenance of gardens for wildlife.

5. CONNECT TO THE GLOBE PROGRAM

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.

Atmosphere
air temperature | clouds | precipitation | surface temperature

Biosphere
green up-green down | land cover classification | Ruby-Throated hummingbirds

Hydrosphere
freshwater macroinvertebrates | water temperature

Pedosphere
pH | soil temperature