

Does your project involve **sustainability** practices? Some of these inventories may be useful.

Energy Audit:

- Students survey the energy practices of their school, homes, and/or their entire community.
- Could lead to projects pertaining to energy saving devices, ways that the community can conserve energy, etc.
- *Also could be applied to watershed projects*
- Inventory Category- Research/ Experts

Recycling Audit:

- Students survey the recycling practices of their school, homes, and/or their entire community.
- Could lead to projects pertaining to implementing recycling programs, promoting recycling practices, local law changes, etc.
- *Also could be applied to watershed projects*
- Inventory Category- Research/ Experts

Environmental/ Carbon footprint:

- How much impact does one person have on the environment? How do you and your community directly impact your environment?
- This inventory can be used to support a variety of projects, often this is an “eye opener” for students
- Inventory Category- Research/ Experts

Water Drainage:

- Where does water go once it’s absorbed into the ground, or down a storm drain? How can proper drainage help your school/ community?
- Students can sample ground cover materials on the school grounds and measure how fast water drains, they can speak with experts in your city for information on their city’s infrastructure, etc.
- Projects could surround issues of water drainage on both on school grounds, or out in the community
- Inventory Category- Lab Experience/ Research/ Experts

Maps:

- Students can use maps to identify some of the community’s facilities that use sustainable practices (energy plants, waste treatment facilities, etc.) as well as places that may have issues.
- Inventory Category- Research

News Media Search:

- Students can look at local media in the recent past.
- Students can make a list of all sustainability issues they see mentioned and summarize what the issues are and what the community is doing about them.
- Inventory Category-Research

Online Databases:

- Students can use online databases to investigate their issues and/or help with determining project approaches.
- Government websites, as well as other agencies have public information that can help your students!
- *Our EarthForceResources.org website is filled with links to such databases.*
- Inventory Category- Research

Interviews:

- Students can gain in-depth knowledge about strengths and issues by speaking with experts in your community.
- Look for local experts or persons who are directly involved with an issue or its solution like city planners, school administration, etc.
- Inventory Category- Research/ Experts

Survey and Opinion Polls:

- Students can create a survey to identify a list of strengths and issues, or it can relate to an issue or issues you have already identified.
- This can shed light on current practices occurring in your community, as well as what people perceive as being important
- Inventory Category- Research/ Experts

Guided Walking Tour:

- Students can identify community boundaries, strengths and issues, learn more about cause/effect of environmental issues.
- Educators and/or experts can guide students through their community and ask driving questions to stimulate thought and discovery.
- *Inventory Category-* Research, Experts, Field Science

Policies and Practices:

- Students identify city/county ordinances; analyze topographical map & evaluate adherence to policies.
- This can help identify current work on your issue, possible solutions, and leads to a better understanding of your community.
- *Inventory Category-* Research/ Experts

Does your project involve watershed quality? Some of these inventories may be useful.

Storm Water:

- Students can assess where storm water drains in their community, and if it is efficient.
- Students can visualize water and groundwater pollutant, see if there are too many nutrients, etc.
- *Inventory Category-* Research/ Experts

Water Quality Testing:

- Students can use tests that assess overall quality of the water, and use this information in the issue selection process.
- *Also could be applied to health projects*
- *Inventory Category-* Field Science

Macroinvertebrate Testing:

- Students conduct physical tests that look at bio composition and biodiversity of macroinvertebrate species within a body of water.
- Species composition can indicate different levels of “healthiness”.
- Students collect specimens, I.D using taxonomy charts, then assess health based on their numbers.
- *Inventory Category-* Field Science

Water Quality Testing-Classroom:

- If getting students out into the water is not an option, you can collect water samples from a variety of local bodies of water, or at multiple points along a single body of water and bring samples to class to test using the above chemical tests.
- These chemical tests correlate to watershed “health”.
- *Also could be applied to health projects*
- *Inventory Category-* Lab Experience

BioCubes:

- Students can use a select area of land or water to investigate species composition.
- These composition assays can then be used as a proxy for ecosystem health, similar to the macroinvertebrate tests mentioned above.
- Set-up: <http://qrius.si.edu/biocube/how-to>
- *Inventory Category-* Field Science

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Does your project involve **human health? Some of these inventories may be useful.**

Pervious/Impervious Material:

- Students can study the types of soil in the community and investigate what can grow and live in this type of environment.
- This information can help them assess the “healthiness” of these soils/materials, as well as investigate if there are better alternatives.
- *Also could be applied to water quality projects*
- Inventory Category- Research/ Lab Experience

Food Waste Audit:

- Students can inventory their schools’ lunchroom waste, their food waste at home, as well as talk to experts in your community about food waste.
- This can help assess if there are ways to reduce food waste, and how well current community practices are managing this potential issue.
- Inventory Category- Research/ Experts

Access to food:

- Students can identify the accessibility of different types of foods in their community.
- Is fast food easier to find than fresh produce? What are the costs associated with each? Are there farmer’s markets?
- What can you do to make healthy food choices more accessible in your area based on these findings?
- Category: Research/ Experts

Air Pollution:

- Students can find sources of air pollution in their community.
- Experts in the city government and businesses can provide insight into the current practices of your community to reduce air pollution.
- Students could try to figure out ways to further reduce air pollution, either by policy or practice change.
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