

Environment Service-Learning Projects



E – elementary level, M – middle school level, H - high school level

Ecosystems/Animal Habitats

- After studying Atlantic Salmon in science class, 3rd grade students decided they wanted to educate others in their community about them, so they worked with a biologist from the Atlantic Salmon Federation to write, illustrate, and produce a children’s book on Atlantic Salmon. The students donated their book to the local library so that other children in the community could learn about salmon. - E
- When they learned that turtles in their community were frequently being injured and killed by vehicles, 4th graders decided they wanted to do something to protect the turtles. Partnering with the local Highway Department and Town Conservation Officer, the students secured funding and installed three turtle crossing signs in their town. - E
- 12th grade students in an Environmental Science class wanted to share their knowledge and enthusiasm for environmental science with younger students, so they partnered with area grade school teachers and environment programs like Project Wet to learn about fun ways to engage younger students in learning. The students went to local elementary schools and taught environmental sessions on topics such as owls, salmon and goop. - H

Environment and Health

- High school biology students monitored the air quality outside of their school and found startlingly high amounts of carbon monoxide, carbon dioxide and sulfur dioxide, which they determined to be the result of vehicular idling. The students developed and presented a policy to ban idling (both cars and buses) to their school board, which approved their policy. - H
- 11th grade chemistry students partnered with the Department of Environmental Protection to study common household hazards. After learning about the dangerous chemicals found in many common household products, the students went to local preschools to educate younger students about the potential hazards in their homes. – H

Global Climate Change

- 10th grade Civics students conducted a Green School Audit for their school to determine how to reduce its carbon footprint. The students discovered there was a lot of waste related to lighting in their school, so they worked with local energy efficiency experts to create a proposal for their school board to increase the number of energy efficient lights and motion detector switches. The students’ plan could reduce their school’s carbon emissions by 122,000 pounds! - H
- As part of efforts to reduce their school’s ecological footprint, 11th and 12th grade physics students partnered with the town’s Energy Team and a local solar power company to power the school’s greenhouse with solar energy. The students were able to secure and install enough solar panels for the entire greenhouse, including the water pump for the irrigation system and all electrical needs, to be powered using renewable energy. - H

Greening Common Spaces (Trails, Playgrounds, etc.)

- Wanting to have better access to city parks and open spaces, 3rd graders partnered with the local land trust and Portland Trails to create greenway trails linking their school to a wooded plot of land owned by the city. The students also created a field guide for the trail. Teachers connected this project to various parts of the students' curriculum including math, science, reading, writing and visual arts. – E
- 8th grade math students wanted to become involved in their town's efforts to become more environmentally friendly, so they worked with the town Climate Committee and local Watershed Association to design and create nearly 2 miles of trail to encourage more walking and biking in the town. - M

Sustainable Agriculture

- High school students partnering with state agriculture experts researched organic livestock production. The students then designed, constructed and managed a chicken coop that provided organic eggs to the school's cafeteria. - H
- High school students studying sustainable agriculture wanted to grow produce for their school cafeteria, so they partnered with the school administration to design and construct a greenhouse for their school. In the first year the students grew and harvested over 110 pounds of organic salad greens, which became a staple in the school's salad bar. - H

Waste and Recycling

- During a "Reading is Fundamental" presentation at their school, New Hampshire 6th graders read The Lorax by Dr. Seuss and discussed San Francisco's new policy on promoting reusable shopping bags. Wanting to do something in their own community to curb the use of plastic bags, the students created a brochure with information on the impact of plastic bags on the environment and raised money to buy every family in their school 3 reusable bags. - M
- Concerned about their city curtailing its recycling program, 9th graders decided to raise awareness about recycling in their community. Partnering with a local recycling center and the school district, the students worked in their own school to identify ways to increase recycling and the re-use of materials. They conducted informational sessions for younger students and adult community members about the importance of recycling and ways to reduce waste. - H

Watersheds (Coastal Marine and Freshwater) and Land Use

- As part of their ecology unit in science class, 5th graders met with a local land trust to learn about environmental issues in their community. Learning that there was a need for vernal pools to be documented and inventoried, the students worked to create wildlife inventories of vernal pool indicator and facultative species. During their work, students discovered spotted salamander eggs – which led to the prevention of development in the area. - E
- To help inform the debate in their community about whether or not they should continue dredging the local harbor, 7th and 8th grade marine science students partnered with the Coastal Mosaic Project to profile local beaches before and after the dredging of the harbor. - M
- After learning about erosion problems on area watersheds, high school students worked with local lake associations, the Department of Environmental Protection, and the Soil and Water District to restore an eroded area in the community. To help prevent future problems, students also researched and created educational brochures on effective erosion control. - H