



CASE STUDY

The Buffalo Zoo Teaches Solutions to Plastic Pollution Through Art and Science

The Buffalo Zoo is a not-for-profit organization promoting wildlife conservation through up-close animal encounters, engaging educational experiences and participation in regional and international programs for endangered species. The Buffalo Zoo aims to be a regional leader in inspiring visitors to respect, protect, and restore natural habitats for wildlife. The Zoo primarily serves the five counties of Western New York and educates hundreds of thousands of people per year about wildlife and its conservation.

Challenge

The Buffalo Zoo's project goal is to increase awareness to effect behavioral changes that will reduce pollution to our waterways and decrease plastic pollution from single-use plastic bags.

Each year, Americans throw away more than 100 billion plastic bags. Less than two percent are recycled. Recycling these bags, and other film plastics, reduces waste and litter resulting in cleaner streets and waterways and less material in landfills. Recycling also protects wildlife because plastic bags and film plastics can be dangerous to animals that ingest them or are strangled by them. Nationwide, litter clean-up efforts amount to as much as \$11 billion per year. Cleaning up litter, such as plastic bags from our city streets and roadsides, is very expensive. The litter that these bags create costs taxpayers billions of dollars in clean-up costs.

Another pollutant, Stormwater is rain and snow melt that is not absorbed into the ground. It flows over impervious surfaces, such as rooftops and paved areas, and collects and transports animal waste, salt, pesticides, fertilizers, oil, grease, soil, and trash. The water reaches storm sewers and ditches and eventually our water resources. One way to combat stormwater pollution is by using a rain barrel.

Solution

The project aims to increase awareness of pollution prevention through hands-on-art projects. Art is a valuable vehicle for educating the public because it can be used to make issues approachable and accessible for all ages. Art can bring science to life and create an interactive environment for teaching lessons on pollution prevention.

This project focuses on educating both teachers and school children in grades K-12 on pollution prevention; specifically preventing plastic pollution and stormwater pollution. Over 200 hours was put into creating a training and curriculum



CHALLENGE

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SOLUTION

- Creating a plastic pollution and stormwater pollution curriculum for teachers
- Training teachers in the curriculum at a professional development day
- Teachers teaching and implementing the curriculum through art-focused pollution prevention projects

RESULTS

- The Buffalo Zoo hosted an 'I am the Solution to Plastic Pollution' art exhibition and award ceremony on Earth Day



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for teachers to teach pollution prevention science through art. The Buffalo Zoo held a curriculum training at a teacher professional development day held at the Buffalo Zoo; 72 teachers were in attendance from 55 different schools.

The teachers then took the curriculum back to their schools and encouraged their students to produce art-focused pollution prevention projects including making short informative and entertaining videos on the impacts of plastic bag pollution, rain barrel painting to promote stormwater pollution prevention, and plastic bag art from bags collected from students' households to make sculptures.



Results

On Earth Day 2018, the Buffalo Zoo hosted 'I am the Solution to Plastic Pollution', an art exhibition illustrating pollution prevention through art that brought together students and community members at the Buffalo Museum of Science. Art work was submitted by 60 classrooms; and painted rain barrels were submitted from 51 classrooms. The exhibition consisted of nine painted rain barrels from local schools submitted as part of the Western New York Stormwater Coalition's Annual Art Contest, as well as sculptures created from thousands of plastics bags that students collected from home. The students' artwork was judged by a panel of 22 volunteer judges, and awards were presented to the winners in front of a packed auditorium of approximately 500 students, teachers, family, and friends. Various community members, local businesses, and organizations that helped fund the project, including the New York State Pollution Prevention Institute, presented awards to the students for their work at a packed awards ceremony.

Online Media:

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TESTIMONIAL

"We had a fantastic experience reaching out to K-12 students and teachers in WNY. They showed outstanding creativity making artwork using plastic bags while they learned about plastic pollution in our environment. None of this could have happened without the funding and support of NYSP2I."

– Andrew Goldstein
Erie County Recycling Coordinator

NYSP2I PARTNERS



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