

ARROYO CLASSROOM 2023-2024

LOCAL WILDLIFE, HABITAT & ARROYO EDUCATION



Executive Summary

During the 2023-2024 school year, Arroyo Classroom served 715 3rd grade students and 36 teachers across 7 schools in Rio Rancho, 5 of which were Title I schools. Each student engaged in 4 hours of programming provided by Ciudad SWCD staff and contractors. SSCAFCA provided a total of **\$30,800.00 in cash** for program coordination and delivery and a contract with Hawks Aloft Inc. for live wildlife presentations. Within the curriculum, *all 715 students engaged with grade level appropriate lessons that covered the following required MS4 topics:*

715
Students



- PET WASTE MANAGEMENT
- PROPER DISPOSAL OF PESTICIDES, HERBICIDES AND FERTILIZERS
- IMPAIRED WATERS IN THE CITY/STATE
- WATERSHED MANAGEMENT



Presentations

Arroyo Walk

The Arroyo Walk takes students out into the field to look for evidence of wildlife such as tracks, scat, exoskeletons and of course- live animals! Students also do plant adaptation investigations through sensory observations of plants. Throughout the walk, students naturally make observations of pollution and human impacts in the environment and discussions about ways to improve the environment through our own actions always take place. (Middle and top right images above)

Local Reptiles and Arthropods

Much like the bird presentation, the reptile and arthropod presentation introduces students to these local creatures, their key roles in the ecosystem and educates students about the importance to protect organisms who are often misunderstood, feared and considered pests. The presentation also focuses on how pollution and human behaviors can impact the habitat in which these

Local Birds

Hawks Aloft Inc. brings a wonderful experience to students with a visit of educational avian ambassadors to the classroom. Some of the birds that visit are: (depending on availability and cultural sensitivities) American Kestrels, Peregrine Falcons, Swansons Hawks, Burrowing Owls, Great Horned Owls or Turkey Vultures. Hawks Aloft help students understand how pollution and human behaviors can impact these birds and what they can do to protect these wonderful creatures. (Bottom right image)

Watershed Lesson

The watershed lesson help students build an understanding of how water cycle interacts with the land. Working in groups, students use paper to mimic topography of the land and make it rain to see how water gathers in lakes and rivers. They they mimic adding pollution the watershed to see where it ends up! (Top left image above)

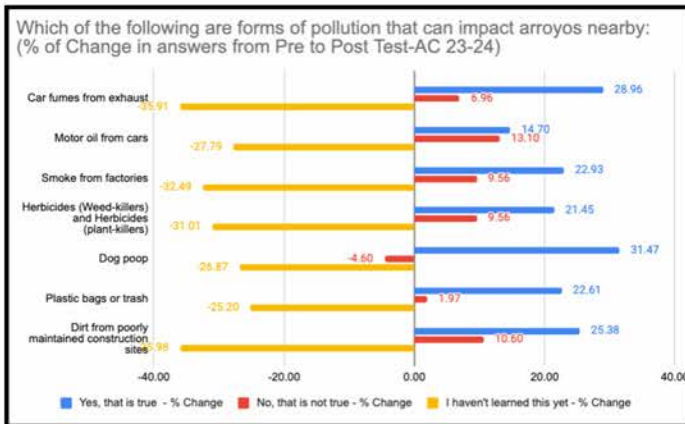
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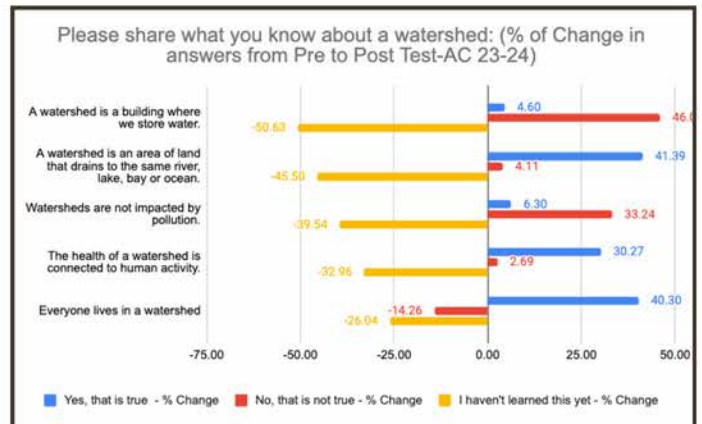


Program Evaluation

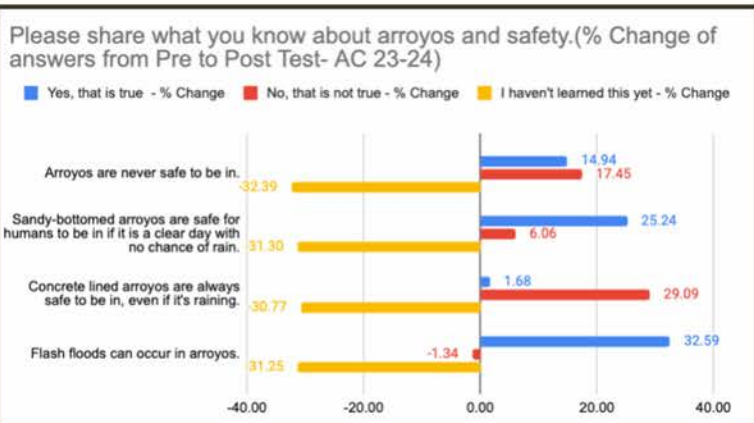
Qualitative evaluation of the program is compiled via teacher feedback (13 respondents) through short answer questions, which concludes that the program was successful in helping students make connections between their actions and impacts on local wildlife and their habitats (arroyos). Teachers also note this program helps them meet 3rd grade science standards. Quantitative evaluation is conducted through pre and post student surveys. The metrics of these surveys demonstrate a positive percentage change of correctly identifying the impacts of pollution on the arroyo habitat and watershed (i.e. pet waste, pesticides, herbicides, fertilizers, oils, and trash). Additionally, students demonstrate growth in understanding arroyo safety. 481 students completed the pre-survey and 422 students completed the post-survey.



STUDENTS DEMONSTRATE AN INCREASE RANGING BETWEEN 15%-31% IN CORRECTLY IDENTIFYING COMMON POLLUTANTS IN THE LOCAL ENVIRONMENTAL



STUDENTS DEMONSTRATE AN INCREASE OF 30%-46% IN CORRECTLY UNDERSTANDING WATERSHED HEALTH CONCEPTS



APPROXIMATELY 30% MORE STUDENTS MADE AN IMPORTANT DISTINCTION THAT FLASH FLOODS HAPPEN IN ARROYOS AND CONCRETE ARROYOS ARE NEVER SAFE.

Post Program Teacher Feedback Quotes

What were the greatest learning outcomes for your class?

"They were fully engaged in the material and learning experiences, and retained that information. They really enjoyed learning about watersheds and were able to actively discuss topics concerning watersheds and our environment throughout the year." -Reed, Colinas Del Norte ES

"The students absolutely loved it, and gained new knowledge about outdoor observations. It also was a great prequel to our ecology unit later in the year!" - Schnittke, Sandia Vista ES

Students learning, applying and sharing their experiences with family." - Begay, Maggie Cordova ES

"Appreciating our environment and influencing them to respect arroyos and desert plants and environment." - Burns, Cielo Azul ES