

# Educational Programs Project Toolkit

2024



[www.zoo.org/empathy](http://www.zoo.org/empathy)

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# TABLE OF CONTENTS

**Introduction** (page 1)

**Executive Summary** (page 2)

**Projects** (page 5)

- ROADMAP to Empathy Project
- Researching the Impact of Lake Superior Zoo School on Preschoolers' Empathy for Wildlife
- Wildlife Champions: Growing Empathy by Connecting Elementary School Communities to Nearby Nature
- Marine Science Club: Building Empathy for Animals in Teens through Effective Instruction Techniques
- Fostering Empathy through Experiential Learning (FEEL)
- 2020 Pilot Projects

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# INTRODUCTION

Woodland Park Zoo's Advancing Empathy (AE) Initiative was launched in 2019 to expand the use of the empathy practices and build community and collaboration with other Association of Zoos and Aquarium (AZA)-accredited zoos and aquariums. As part of its AE Initiative, Woodland Park Zoo was privately funded to develop a grant program that builds capacity to foster empathy for wildlife in accredited zoos and aquariums across Alaska, Idaho, Minnesota, Montana, North Dakota, Washington and Wisconsin.

The AE Grant Program supports organizational efforts to plan, build, and/or expand practices and programs that foster empathy for animals and wildlife. Through grant support, recipients are developing the resources and expertise they need to increase the long-term impact of empathy practices and programs at their zoo or aquarium and have a lasting influence on their organization and their peers.

To date, the program has granted \$4.7 million to support 61 grant projects that have developed, implemented, and evaluated initiatives ranging from formal programs for children to infusing empathy into biofact usage, exhibit design, and interpretive plans. Grantees have also benefited from the program's collaborative nature and cross-institution knowledge sharing, which happens during grant periods, across grant rounds, and in professional forums such as peer-reviewed journals and panels at AZA conferences.

AE grant recipients also share best practices, lessons learned and resources developed through their grants with the Advancing Conservation through Empathy for Wildlife (ACE for Wildlife™) Network. The Network is a global learning community that creates and shares effective practices to foster empathy for animals and people. This amplification allows grant outcomes to support collaboration among all zoos and aquariums working to inspire conservation action.

To make the 142 resources developed by all 61 projects more accessible, the AE team has created this series of toolkits based on the 10 underlying themes that cut across grant projects including:



*Animal Ambassadors*



*Animal Care Play Spaces  
& Young Learners*



*Animal Husbandry*



*Construction*



*Diversity, Equity,  
Accessibility & Inclusion*



*Long Term Planning*



*On-Site Interpretation*



*Programs & Partnerships*

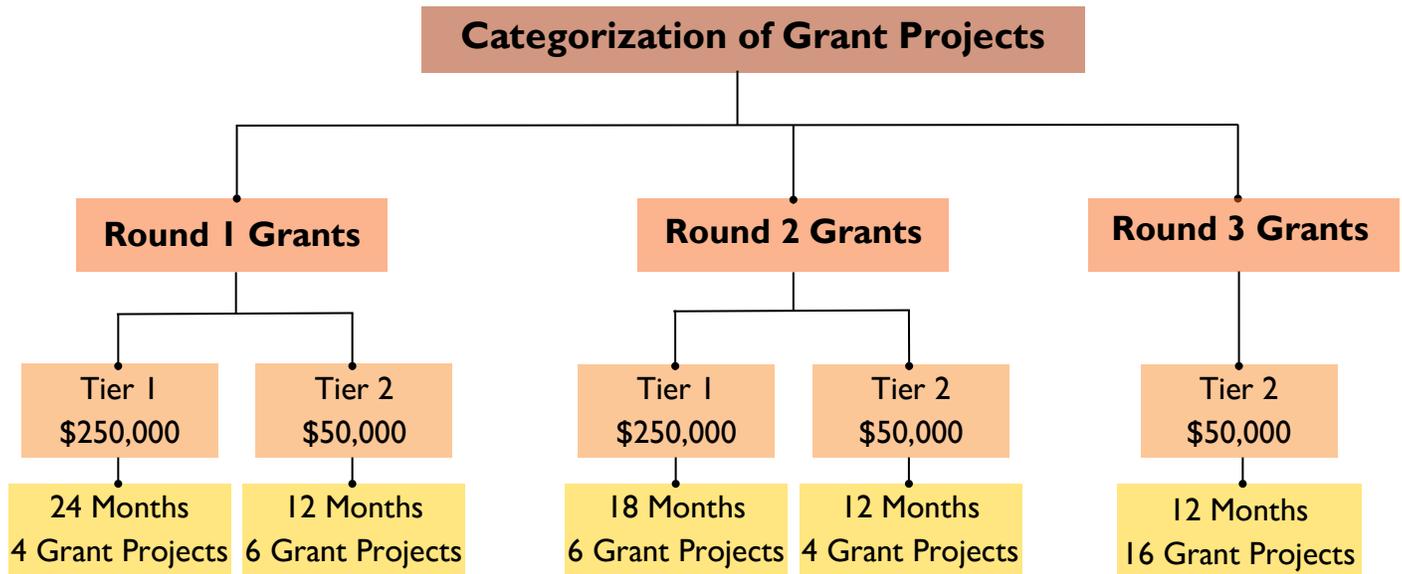


*Signage*



*Staff and Volunteers*

The toolkits include AE grants funded in the 2019 grant pilot program and AE Grants Rounds One through Three. As subsequent grant rounds conclude, additional resources will be added. In Rounds 1 and 2 (awarded in 2021), there were two funding tiers: Tier 1, up to \$250,000 and up to 24 months (in Round 1) or 18 months (in Round 2); and Tier 2, up to \$50,000 and up to 12 months. Round 3 only featured Tier 2 grants due to the timeline of the overarching AE grant that had been set to end in December 2023.



*Categorization of Advancing Empathy Grant Program*

For general takeaways from the granting program, see our [culminating.granting.report](#).

## EXECUTIVE SUMMARY

This executive summary encapsulates the collective impact of multiple grant-funded projects aimed at promoting empathy for wildlife through innovative educational programs and strategic partnerships. The projects, undertaken by various zoos and aquariums, targeted diverse groups including all ages, from preschoolers to underserved elementary aged students to teens, fostering a deeper connection with nature and wildlife.

\*This toolkit includes grants from our 2020 pilot round of the Advancing Empathy Grant program. In 2020, \$70,062 was distributed to four zoos and aquariums across Washington, North Dakota, Minnesota, and Wisconsin. This grant program launched during the COVID-19 pandemic, presenting grantees with a number of potential challenges to complete grant work as intended. All grant projects made noted changes to their planned activities. Due to COVID-19, grantees were faced with site closures, school closures, reduced class sizes, staffing reductions, partners’ competing priorities, changes to operating protocols, and the sudden need to transition to virtual learning formats. Faced with these challenges, grantees quickly innovated and adapted their activities to respond to changing conditions, while still maintaining their original project goals. Three grantees that originally intended to deliver programming to students in the classroom pivoted to synchronous, virtual formats. Due to the nature and challenges presented in the pilot program, these grants follow a different format than grants from the rounds following.

## Projects Included



*ROADMAP to Empathy Project*



*Researching the Impact of Lake Superior Zoo School on Preschoolers' Empathy for Wildlife*



*Wildlife Champions: Growing Empathy by Connecting Elementary School Communities to Nearby Nature*



*Marine Science Club: Building Empathy for Animals in Teens through Effective Instruction Techniques*



*Fostering Empathy through Experiential Learning (FEEL)*

## Pilot Projects



*Empowering Teachers and Docents to Incorporate Empathy Best Practices*



*Fostering Empathy for Preschoolers at Lake Superior Zoo*



*Empathy Explorers: Animal Program Teaching Empathy for Wildlife*



*Home Sweet Habitat: Empathy-based Program for Primary Aged School Students*



*Distance Learning: Deepening Empathy for World's Oceans and Great Lakes through Peer-Peer Relationships*

### Objectives and Strategies

These kinds of projects aim to enhance educational programming, build organizational capacity, develop tools for reflection and evaluation, and expand outreach. These objectives were achieved by integrating empathy best practices into existing and new educational initiatives. Another essential component of these grants was the hiring and training of staff dedicated to youth engagement and empathy education and increasing participation through in-person and virtual meetings, conservation events, and partnerships with local schools and communities.

### Key Achievements

The combined efforts of these projects led to significant achievements including the development of leadership in empathy-based education, effective self-reflection mechanisms, programs incorporated tools and methodologies for self-reflection, aiding both instructors and participants in evaluating and improving their empathy-related behaviors. These projects also boast a wide array of participants, from preschoolers to high school students, who were engaged through structured programs, special events, and hands-on activities.

### Outputs and Deliverables

The projects collectively produced a variety of outputs including:

- Educational Content and Activities: numerous empathy-based meetings and hands-on events were organized providing participants with rich, immersive learning experiences.
- Curricula and Tools: customized curricula and evaluation tools were developed to support and measure empathy education.
- Community and School Partnerships: strong partnerships were established with local schools and communities, fostering a collaborative approach to empathy education and wildlife conservation.

### Challenges Encountered

While these projects achieved substantial progress, they also faced challenges. As often happens with grants, staff turnover and scheduling conflicts impacted the continuity and smooth execution of some programs. Many of these grants also experienced adaptation to changing circumstances: the persistence of COVID-19 required modifications to meeting formats and program structures, highlighting the need for flexibility and adaptability.

### Conclusion

The grant-funded projects have demonstrated the profound impact of integrating empathy into wildlife education. By fostering connections between participants and the natural world, these initiatives have not only advanced empathy education but also strengthened community ties and paved the way for future programs. The successes and lessons learned from these projects offer a valuable blueprint for expanding and enhancing empathy-driven educational efforts in the future.

# PROJECTS

## ROADMAP to Empathy Project

*Como Park Zoo & Conservatory, October 2021 - September 2023 (Round 1, Tier 1)*

**Project Summary:** This project enhanced the ROADMAP (Reaching Our Audiences by Developing Mission Aligned Programs) framework to operationalize empathy best practices and increase capacity to develop and deliver effective empathy-based programming and experiences at Como Park Zoo & Conservatory (CPZC) and Denver Zoo (DZ), which had created the original ROADMAP framework. Staff and volunteers strengthened their ability to develop and deliver effective empathy-based programming and experiences. They also planned to utilize an integrated, enhanced ROADMAP to effectively educate, engage, and foster empathy for wildlife beyond the life of the grant period.

**Achieved Outcomes:** CPZC and DZ operationalized empathy best practices and increased their capacity to develop and deliver effective empathy-based experiences. The zoo completed several activities to pilot the enhanced ROADMAP and evaluate its effectiveness in strengthening their ability to facilitate effective empathy-based experiences.

Click [here](#) to view the webinar and resources related to this project.

**Positive Project Comment:** *[Developing an empathy-based public talk was] “so interesting - such a different approach than what we are used to. It made me really think about how I was talking about the animals and why, and I felt like it connected much more with the visitors.”*

## Researching the Impact of Lake Superior Zoo School on Preschoolers' Empathy for Wildlife

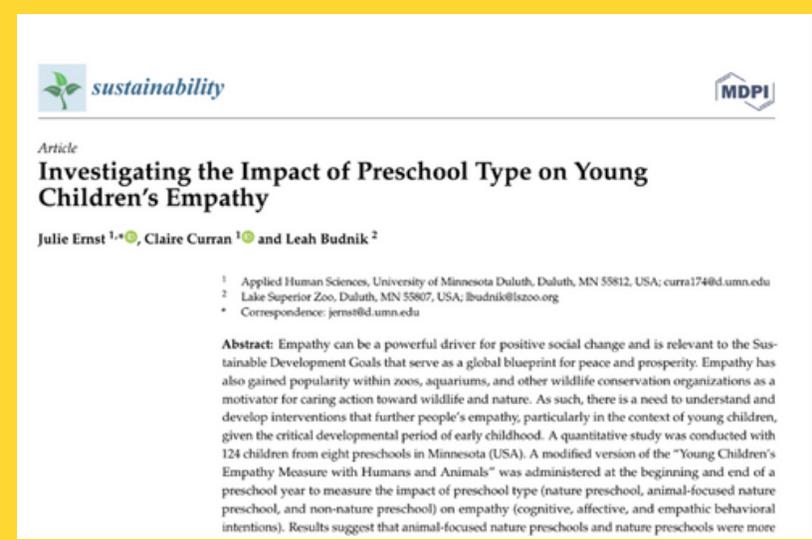
Lake Superior Zoological Society, October 2021 - September 2022 (Round 1, Tier 2)

**Project Summary:** This project strengthened the capacity of the Lake Superior Zoo (LSZ) to effectively foster empathy for wildlife among the LSZ preschool participants by conducting evaluation research toward understanding the impact on cognitive perspective taking, emotional sharing, and empathic concern after nine months of participating in LSZ preschool and identifying areas where changes are needed. Data collected from this evaluation guided reflection toward ensuring the intervention was effective across participants, regardless of gender, culture and race, and socio-economic status.

**Achieved Outcomes:** LSZ was one of two preschools in animal-focused nature preschool groups that participated in the conducted empathy study. The research indicated these preschools and nature preschools were more effective than high-quality non-nature programs in supporting empathic behavioral intentions toward others. The intervention at LSZ worked as intended to support empathy development for preschool participants, and this research provided evidence that it would be valuable for more organizations to open nature/animal-focused preschools to support the development of empathy in young children more effectively.

Click [here](#) to view the webinar and resources related to this project. This project also builds on Lake Superior Zoo's pilot round – refer to the pilot round for more information on the Lake Superior Zoo preschool and context to this project.

**Evaluation:** This project created [a sampling system assessment tool](#) to help assist teachers in observing, recording, and evaluating an individual child's skills, knowledge, behaviors, and accomplishments.



**Article**  
**Investigating the Impact of Preschool Type on Young Children's Empathy**  
Julie Ernst <sup>1,\*</sup>, Claire Curran <sup>1</sup> and Leah Budnik <sup>2</sup>

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**Abstract:** Empathy can be a powerful driver for positive social change and is relevant to the Sustainable Development Goals that serve as a global blueprint for peace and prosperity. Empathy has also gained popularity within zoos, aquariums, and other wildlife conservation organizations as a motivator for caring action toward wildlife and nature. As such, there is a need to understand and develop interventions that further people's empathy, particularly in the context of young children, given the critical developmental period of early childhood. A quantitative study was conducted with 124 children from eight preschools in Minnesota (USA). A modified version of the "Young Children's Empathy Measure with Humans and Animals" was administered at the beginning and end of a preschool year to measure the impact of preschool type (nature preschool, animal-focused nature preschool, and non-nature preschool) on empathy (cognitive, affective, and empathic behavioral intentions). Results suggest that animal-focused nature preschools and nature preschools were more

[Click here to read Lake Superior Zoo's article on Investigating the Impact of Preschool Type on Young Children's Empathy](#)

**Positive Project Comment:** "At the beginning of the school year children asked questions about whether they can touch the animal, why it's that color, and what its name is. At the end of school year, they were asking questions like what it eats, why it's hiding, and what its home looks like. It seemed like they were relating to the animals with more empathy toward the end of the school year. – LSZS Preschool Director

## Wildlife Champions: Growing Empathy by Connecting Elementary School Communities to Nearby Nature

*Point Defiance Zoo and Aquarium, October 2021 - September 2023 (Round 1, Tier 1)*

**Project Summary:** This project expanded Point Defiance Zoo & Aquarium's (PDZA) long-term partnership with the Tacoma School District to nurture and grow empathy towards animals in a second elementary school. This was accomplished by connecting highly underserved students to animals and nature through a comprehensive and collaborative program called Wildlife Champions at Lister Elementary in East Tacoma, Washington.

**Achieved Outcomes:** The goal of having Wildlife Champions project develop empathy for wildlife in Lister Elementary students was achieved. PDZA created a co-designed Lister Wildlife Champions curriculum that teachers found valuable, and impactful to the Lister school community and the zoo. They also began a long-term experience refining evaluation tools & processes that would result in a streamlined, consistent, and accurate approach and toolset for documenting the development of empathy for animals among K-5 students. This partnership showed that Wildlife Champions is a model for other organizations and could be replicated (not duplicated).

Click [here](#) to view the webinar and resources related to this project.



**Positive Project Comment:** Check out this blog post to see the [impact of wildlife champions](#).

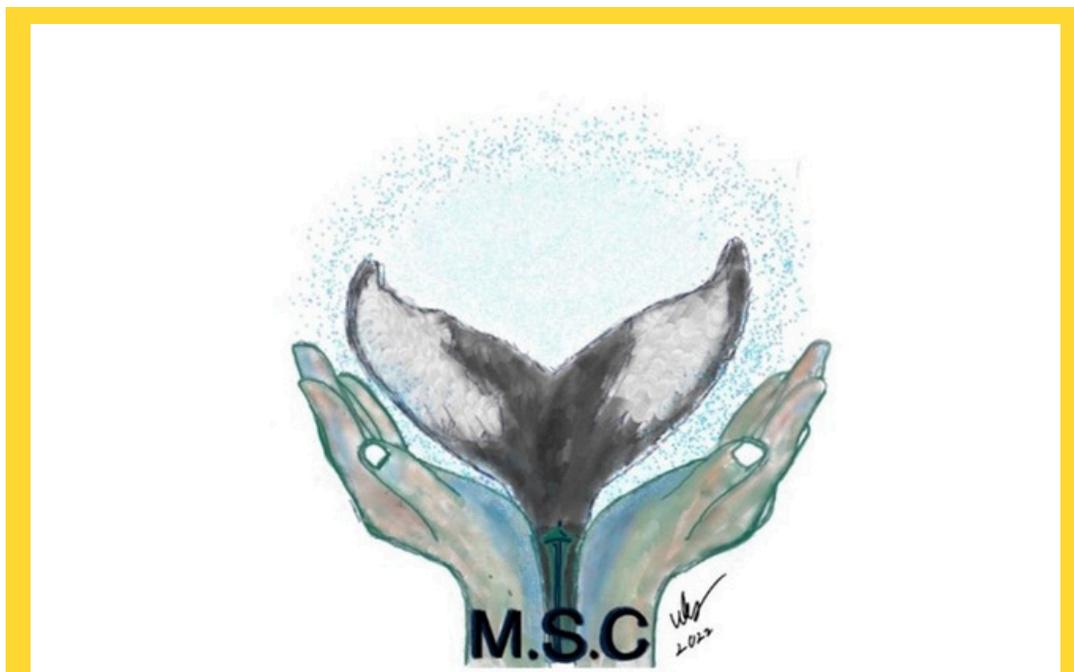
## Marine Science Club: Building Empathy for Animals in Teens through Effective Instruction Techniques

Seattle Aquarium, April 2022 - May 2023 (Round 2, Tier 2)

**Project Summary:** This project was an evolution of the Seattle Aquarium's Marine Science Club, piloted during the summer of 2021. With support from the Advancing Empathy grant, Seattle Aquarium built capacity to reach more high school-aged youth and infused empathy best practices into their Marine Science club. They did this by hiring and training new youth engagement staff, developing a reflection and evaluation tool, and expanding the program to include more in-person and virtual meetings, plus special conservation events. The goal was for high school-aged youth to incorporate empathy for wildlife into their ethos, while also viewing themselves as part of a community of concerned ocean citizens who act on behalf of all ocean life.

**Achieved Outcomes:** Seattle Aquarium increased leadership for empathy-based programs by providing staff training and learning opportunities related to empathy as well as opportunities to practice implementing empathy practices in their instruction. They also improved self-reflection through the Reflecting on Practice Program and expanded a corps of next-gen ocean advocates by reaching 71 marine science club participants in its first year. This program continues to operate on an ongoing basis.

Click [here](#) to view the webinar and resources related to this project.



*A submission from one participant when youth were asked to design a pin or logo that visually explains the Marine Science Club*

**Quote from a participating instructor:** *“One of the things we discussed was taking care of yourself and having empathy for humans and empathy for wildlife... we can't save the environment if we're not taking care of ourselves... all of these teens see these adults putting their entire beings into their work and they don't see the side of needing to take some time off and taking care of yourselves.” – Marine Science Club instructor*

## Fostering Empathy through Experiential Learning (FEEL)

Alaska SeaLife Center, December 2022 - September 2023 (Round 3, Tier 2)

**Project Summary:** This project developed and implemented seven empathy-focused curricula for summer day camp focused on increasing awareness of Alaska's animals, ecosystems, and native culture. The Day Camps were intended for participants aged 8-14 who were visiting Seward, AK with their families, but also reached local families as well. They saw an improved understanding of, and empathy towards, Alaskan animals and ecosystems, and inter-relationship with native cultures; and increased propensity to adopt pro-conservation behavior.

**Achieved Outcomes:** Ocean Explorers Summer Day Camp created an inclusive space for kids 8-14 to gain knowledge and engage with Alaskan marine animals, ecosystems, and culture, encouraging empathy and pro-conservation action through experiential learning. Training in empathy and evaluation provided staff an opportunity to develop and practice empathy techniques, observational analysis, and resulted in expanded curriculum development, and improved guest interactions.

Click [here](#) to view the webinar and resources related to this project.

**Evaluation:** To help observe indicators of empathy in camp participants, Alaska SeaLife utilized their empathy observation sheet which can be found [here](#).



Badge designs from Alaska Sea Life's FEEL project that students could collect

**Quote from project:** "Many campers would request to return to camp for an additional day after attending. One camper, Dylan, age 9, who attended camp for multiple days throughout the summer frequently visits the Alaska SeaLife Center, and when he saw his camp instructors on a family visit, he said, 'I wish I could come back to animal science class. I miss the animals and playing with friends.'"

**The following links include grant presentations from our 2020 pilot round:**

*February 2020 - December 2020*

- [Empowering Teachers and Docents to Incorporate Empathy Best Practices](#) – Henry Vilas Zoo
  - This project included the creation of online teacher resources as well as Interpretive Docent training modules aimed at fostering empathy for animals during group visits to Henry Vilas Zoo.
- [Fostering Empathy for Preschoolers](#) – Lake Superior Zoo
  - This project focused on building the capacity of the Lake Superior Zoo for effectively implementing empathy practices within the preschool with a long-term aim of contributing to the growing knowledge base regarding effective practices for and assessment of empathy in the context of wildlife conservation.
- [Empathy Explorers: Animal Program Teaching Empathy for Wildlife](#) – Racine Zoo
  - This grant supported the design, build, and pilot of an animal program teaching empathy for wildlife and humans simultaneously. The program, piloted at the early elementary level, incorporated effective ACE for Wildlife empathy practices in partnership with the existing district socioemotional learning curriculum.
- [Home Sweet Habitat: Empathy-based Program for Primary Aged School Students](#) – Roosevelt Park Zoo
  - Redesigning an existing education program, Home Sweet Habitat had a focus on building empathy for wildlife and wild places. First grade students explored what a habitat is, met an ambassador animal, and got hands-on by building their own animal habitats. The program evaluated the students' emotional responses through pre and post surveys to determine the program's effectiveness in establishing an emotional connection with wildlife in first-grade students.
- [Distance Learning: Deepening Empathy for World's Oceans and Great Lakes through Peer-Peer Relationships](#) – Zoological Society of Milwaukee
  - This project built a partnership that enhanced science learning and perspective-taking for grade 4 students by collaborating on curriculum for distance learning experiences and to develop connections between Oceans and Great Lakes fostering empathy for the people and animals in those places.

**For further information on grant projects and the Advancing Empathy Grant Program, please send inquiries to [empathygrants@zoo.org](mailto:empathygrants@zoo.org)**