

Animal Care Play Spaces & Young Learners Toolkit

2025



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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 \$8 million to support 80 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 80 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

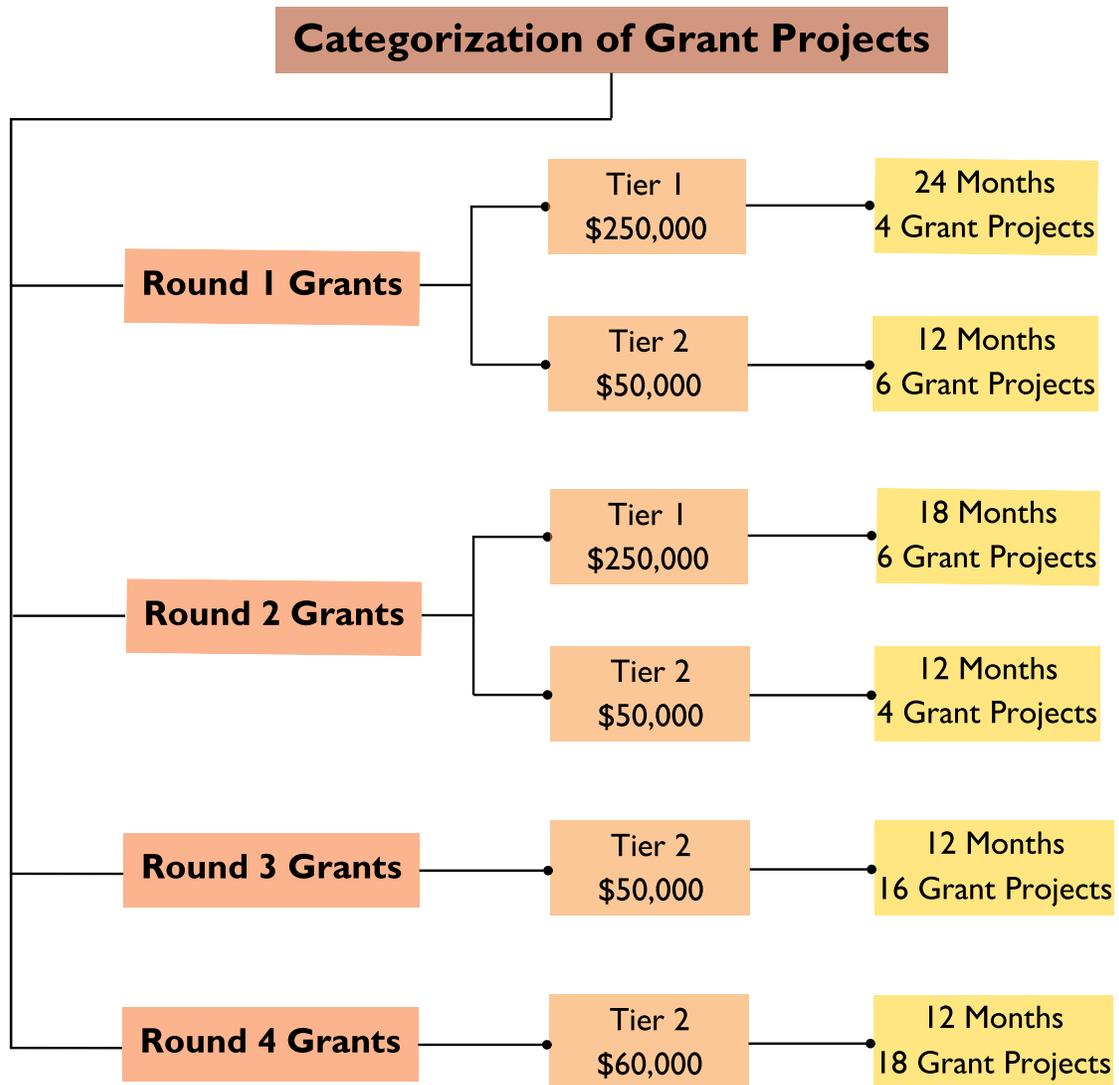


Signage



Staff and Volunteers

The toolkits include AE grants funded in the 2019 grant pilot program and AE Grants Rounds One through Four. 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. Due to an AE grant extension, Round 4 Tier 2 grants were offered on a 12-month timeline as well, with an increase of up to \$60,000 to account for rising costs.



Categorization of Advancing Empathy Grant Program

For insights into the collective impacts of funded projects and key takeaways from the grant program to date, see our culminating grant reports in the [Resource Library](#). These reports highlight lessons learned, emerging themes, and recommendations as the granting program continues to evolve.

EXECUTIVE SUMMARY

This executive summary outlines the outcomes, achievements, and challenges of seven grant projects funded to help grantees develop interactive exhibits or play spaces. These spaces are designed for free-play and experiential learning, giving children and/or their caretakers the opportunity to practice caring for animals, practicing empathy skills (like activating imagination and inspiring perspective taking), or engaging in adjacent foci of play.

Projects Included



Pilot - Fostering Empathy at Lake Superior Zoo Preschool



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



Immersive Nature Experiences at the Lake Superior Zoo



Animal Care Play Space “Caring Cove”



Education Courtyard Expansion “Discovery Zone”



Inspiring Motivational Empathy through Playful Connections with Zoo Animals



Fostering Empathy through Playful Connections with nature

Objectives and Strategies

Each grantee had a different vision and strategy for accomplishing their project. Some projects included the addition of new exhibit areas for live ambassador animals and empathy infused signage, while others focused on caring actions towards animals by providing children with stuffed animals they could care for in a variety of ways throughout the play space. However, these wide ranges of projects shared a common objective of providing young children and their caretakers with a special interactive space on grounds designed for them, with the intention of it being an environment designed to build empathy skills.

Key Achievements

These projects created new highly interactive areas at their respective organizations. Whether it was working with an existing space, or creating a new one, these projects allowed grantees to transform previously empty space into lively, informative, and fun guest experiences.

Outputs and Deliverables

The projects collectively produced a variety of outputs including:

- New or updated spaces in the organization,
- New interactive materials,
- New animal ambassador habitats and associated signage and;
- Interactive games and a nature play-space

Challenges

The main challenges experienced by these grant projects were mainly construction related whether they were associated with materials management or timing

Conclusion

These projects allowed grantees to increase their capacity for achieving empathy related outcomes and effectively utilize space to create engaging activities for children and their caretakers. Aspects of both projects provided the organization with foundations and processes that could be adapted to other areas of their zoo or aquarium to create similar, engaging content or guest spaces.

PROJECTS

2020 Pilot Project

Fostering Lake Superior Zoo Preschool – Lake Superior Zoo

This project focused on building the capacity to effectively implement empathy practices within the preschool program. With a long-term aim of contributing to the growing knowledge base on empathy development and assessment of empathy in the context of wildlife conservation, the team conducted a literature review, created a theory of change-based logic model, and selected social-emotional learning curricula for their program. Staff piloted empathy-innovations and collected data on empathy toward people, animals (including wildlife and pets), and affinity for nature. The project also developed a culture of empathy within the preschool environment and helped build towards future research and implementation.

Click [here](#) to watch the recording and resources related to this project.



Lake Superior Zoo's preschool program nurtures empathy for wildlife by helping young children connect, observe, and care for animals and nature through imaginative play.

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 foster empathy for wildlife among the LSZ preschool participants by conducting evaluation research to understand the impacts of participation on cognitive perspective taking, emotional sharing, and empathic concern after nine months. Using a combination of the Second Step curriculum and the Pyramid model framework, teachers embedded empathy-skill building into daily learning and nature or animal encounters. Data collected from this evaluation guided reflection on how well the intervention worked across different genders, cultures, races, and socio-economic backgrounds, helping identify opportunities for refinement to improve the program's relevance and impact.

Achieved Outcomes: LSZ was one of two nature preschools included in the empathy study conducted by University of Minnesota Duluth researchers and LSZ staff. Findings showed that animal-focused preschools and nature preschools were more effective than high-quality non-nature programs in supporting empathic behavioral intentions toward others and fostering cognitive and affective empathy for wildlife. Observations at LSZ demonstrated that children frequently engaged in perspective taking, emotional sharing, and caring actions towards others – animals and peers. The intervention at LSZ worked as intended to support empathy development for preschool participants, and this research provides evidence that supports the value of expanding nature- and animal-focused preschool opportunities as an effective approach for developing empathy in young children.

Click [here](#) to view the recording and resources related to this project, and read their instrumental journal created through this project: Investigating the [Impact of Preschool Type on Young Children's Empathy](#).

**This project builds on Lake Superior Zoo's pilot round, Fostering Empathy for Preschoolers – refer to the pilot round for more information on the Lake Superior Zoo preschool and context to this project.*

Success Story: *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 the 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 towards the end of the school year. – LSZS Preschool Director*



Young learners get an up-close experience with a tiger at Lake Superior Zoo's preschool, building empathy for wildlife through close, thoughtful encounters.

Immersive Nature Experiences at Lake Superior Zoo

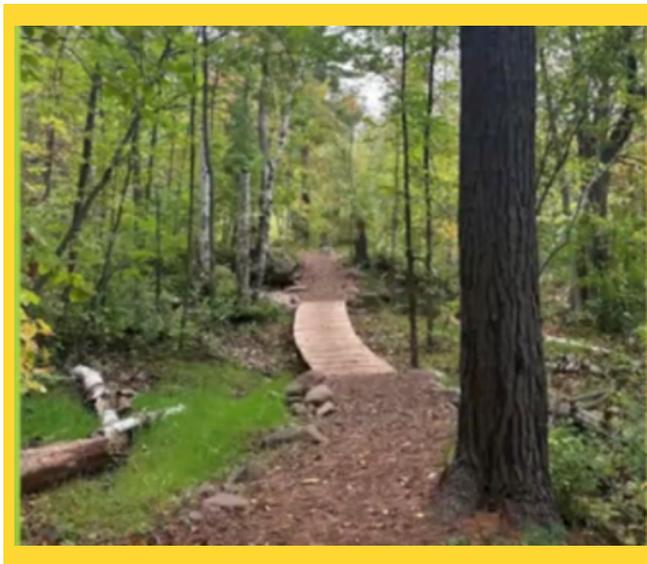
Lake Superior Zoo: Round 2 Tier 1, April 2022 – September 2023

Project Summary: This project focused on designing, rebuilding, and re-opening nature trails that had been closed since a major flood in 2012. The revitalized trails were created to immerse visitors, specifically preschool students and education program participants, in nature exploration with a focus on native species and regional conservation efforts. Educational signage and nature play elements were thoughtfully integrated to foster empathy for animals, plants and ecosystems by supporting emotional connection, perspective taking, and respectful engagement with the natural environment.

Achieved Outcomes: Lake Superior Zoo completed construction of a safe, revitalized trail system that includes erosion controls, and space for empathy-focused interpretive elements. Five educational signs were developed with guidance from a community survey, which helped identify the native species of greatest interest to guests. The final signs use empathy-based practices such as first-person narration and human-animal comparisons to inspire caring actions and perspective taking. The project also introduced nature play areas with signage that promotes safe, respectful, and developmentally appropriate outdoor exploration. Indigenous perspectives were incorporated through land acknowledgment and Ojibwe language translation, guided by a Fond du Lac tribal language specialist.

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

Success Story: The nature trail has created many access points for children to engage in nature play. Each place where the children play has become a small world that the children are getting to know intimately. We play, eat, explore and relax among the wild flora and fauna of the forest and creek. Children have named favorite play spaces along the trail with names such as The Boulders, Apple Falls, The House and Fern Forest. – Mandi, Zoo School (Preschool) teacher



Lake Superior Zoo's beautiful nature trail invites visitors to connect with local wildlife and explore native plants and landscapes, guided by Ojibwe signs that foster connection and respect for nature.

Animal Care Play Space “Caring Cove”

Seattle Aquarium: Round 3 Tier 2, September 2022 – September 2023

Project Summary: This project was instrumental in creating opportunities for young visitors to practice empathy for animals through an explorative, interactive and hands-on Animal Care Play Space. Caring Cove encourages children to imagine themselves as veterinarians and caretakers through both guided- and free-choice play experiences. Grounded in science and research, the addition of Caring Cove promotes ethical and empathetic decision making, fosters perspective taking, and builds the Seattle Aquarium’s capacity to integrate empathy-focused activities into visitor experiences.

Achieved Outcomes: Seattle Aquarium’s empathy-infused imaginative play space, Caring Cove, opened to the public in 2023, and has been met with enthusiastic engagement from young visitors and their families. Funded components such as the animal exam stations, feeding and enrichment area, and interactive felt wall have become favorite spots for children ages 2–8, sparking curiosity, care-based decision making, and perspective taking as children role-play as animal caretakers. Program enhancements like animal care narratives, an enrichment flipbook, and custom x-rays deepen opportunities for imaginative play and empathy-building. Initial observations recorded high levels of engagement and extended stay times, indicating a meaningful visitor experience that promotes cognitive, affective, and behavioral empathy outcomes. In recognition of its impact, Caring Cove received the Association of Zoos and Aquariums (AZA) Facility Award – Top Honors in 2024.

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

Success Story: Guest comments provided through Seattle Aquarium’s internal guest survey platform:

“The Seattle Aquarium was such a cool experience! We especially loved the play area for kids. It’s so cool to have such an immersive play experience for kids. Aside from the attractions. Our child loved taking care of the marine life. From wrapping the stuffed animals to pretend feeding the fish. We could have spent more time there.”

“My six-year-old loves the caring cove. She adored the big turtle and all the puffin stuffies. She medicated them and fed them and helped them all heal to return to their environments.”

“I took my daughter to the Aquarium on Tuesday. She has been to the Aquarium a lot through the years, and she noticed the new Caring Cove right away. It was a BIG hit for her – she loved it. Like, loved it so much she wants to re-create it at home.”

You can also see the caring cove featured in these articles:

[Seattle Aquarium blog post](#)

[Parent Map: The Seattle Aquarium: Sweet Refreshed Play Area and Fun With Marine Animals](#)



In Caring Cove, young veterinarians and animal care staff check on marine animals through imaginative play.

Education Courtyard Expansion “Discovery Zone”

NEW ZOO & Adventure Park, Round 3 Tier 2, September 2022 – September 2023

Project Summary: This project transformed the NEW Zoo's former Education Courtyard area into the Discovery Zone, a unique, interactive space where guests of all ages can learn, play, and build empathy for animals and nature. The project tripled the size of the original area, including the creation of outdoor “Vacation Station” habitats for education ambassador animals that were previously housed behind-the-scenes and only visible by zoo guests during specific programs. These new habitats accommodate a range of species that rotate through the space with flexible signage that highlights the animals present in the space at that time. The expansion also introduced empathy-based interactive signage and nature play spaces designed to encourage perspective taking, animal mimicry, and deeper connections to animals and wildlife, especially for the zoo's youngest audiences.

Achieved Outcomes: The NEW Zoo & Adventure Park expanded a small, private courtyard into a large, 18,000-square-foot Discovery Zone, an inclusive and engaging environment for all visitors. The new zone include three outdoor animal habitats with “get to know me” signs that introduce each animal, a 250-foot pathway with interactive games and puzzles that promote learning through play, immersive photo ops, and a giant nature play area featuring log play spaces and a web tunnel, a Nature's Building Block zone, a musical Pebble Harp, balance stations, and a themed dino dig experience. The project also added an outdoor classroom enclosed with a bamboo fence for private educational programs to support field trips and camps. This expansion has strengthened the zoo's capacity to foster empathy through self-directed learning, playful exploration, and meaningful encounters with ambassador animals, while inspiring new ideas for empathy-based interpretation throughout the entire zoo.

Success Story: When asked about the new Discovery Zone, the NEW Zoo & Adventure Park's Operations Manager, Barbra Basten, remarked “I love that it will provide access for our guests and our behind-the-scenes education animals a better opportunity to connect by offering more outdoor habitat space.”

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



A vibrant new Discovery Zone invites visitors of all ages to connect, play, and develop empathy for animals and wildlife through hands-on nature play and integrated signage.

Inspiring Motivational Empathy through Playful Connections with Zoo Animals

Lake Superior Zoological Society, September 2022 – September 2023 (Round 3, Tier 2)

Project Summary: Lake Superior Zoo designed and installed new play spaces and interactive signage to deepen empathy-driven connections between young visitors and animals, focusing on the new red panda exhibit. Grounded in research on motivational empathy, beginning with emotional sharing, feelings identification, and perspective taking, the project engaged staff and stakeholders throughout the design process to ensure alignment with the red panda's natural behaviors and needs. The custom designed play space and signs invite preschoolers, education program participants, and zoo guests to “play like a red panda” by balancing, climbing, and exploring in ways that mirror red panda behaviors in developmentally appropriate, play-based ways. New interactive elements like the “wheel of feelings” encourage emotional reflection and promote conservation actions. Staff reflections and evaluation data will guide future empathy-based exhibit enhancements.

Achieved Outcomes: Seven empathy-focused signs were installed alongside the red panda exhibit, complementing the custom-designed play space that parallels the elements in the red panda habitat. Children now engage in activities like balancing on logs, climbing through rope tunnels, and gripping swings, mimicking red panda behaviors to encourage perspective taking. The custom designed, interactive “wheel of feelings” sign prompts visitors to notice and name the red panda's emotions and their own, fostering emotional sharing. Staff capacity also grew through active collaboration in design, signage development, and evaluation, equipping the team with new tools to incorporate empathy principles into future exhibits. Early observations confirmed that children and caregivers actively use the signs to make connections, laying the groundwork for more empathy-based experiences throughout the zoo.

Click [here](#) to view the recording and resources related to this process.

Success Story: *“The animal care staff at the Lake Superior Zoo had a fabulous time creating the red panda exhibit with empathy at the forefront of our design process. During our design discussions, every aspect of the exhibit was looked at from the keeper perspective, the animal perspective, and the guest perspective. By doing this we were able to design a habitat that allows our red panda to display her natural behaviors alongside children doing their natural play behaviors on the same types of climbing structures, swings, and rope systems. Building the habitat with empathy at our forefront made the process smoother as there was a common goal that all staff were working toward. This process has been incredibly rewarding for the staff because not only did we design the habitat and parallel play intentionally, but we have seen both our guests and red panda enjoying the same play structures at the same time, meaning we were successful in our goals!”* – Lizzy Larson, Director of Animal Management



Explore how the red pandas feel today through the interactive wheel of feelings.

Fostering Empathy through Playful Connections with Nature

Lake Superior Zoological Society, January 2024 – December 2024 (Round 4 Tier 2)

Project Summary: Lake Superior Zoo expanded and redesigned its nature playscape to deepen young children's opportunities to build empathy for nature through sensory-rich, imaginative play. Designed in collaboration with a local nature play consultant and landscaping team, the updated space addressed erosion concerns and accessibility challenges while introducing features that encourage the children to connect with local plants and animals. The playscape is used year-round by LSZ preschool students and serves children attending weekend and evening zoo events, nurturing empathy for wildlife and the natural world through unstructured, nature-based play.

Achieved Outcomes: The revitalized playscape invites children imagine themselves as animals - climb like red pandas, build nests like eagles, and slide like otters while engaging their senses through activities like swinging in trees, listening to the pebble harp, or exploring and creating in the mud kitchen. These experiences support emotional connection, perspective taking, and reinforce the importance of care for living things. Two educational signs, developed with guidance from the Children & Nature Network, offer caregivers tips for supporting nature play and empathy development. These signs are placed at the nature playscape and along the zoo's nature trail to reinforce the value of child-led exploration across the zoo experience. Teacher observations show that the space inspires cooperative play, imaginative animal role play, and meaningful connections to nature—fostering the next generation's care for wildlife.

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

Success Story: The playscape has become an essential tool in reinforcing these lessons daily. Children check in with peers who are hurt, problem solve when they want to play with the same toy and consider how their actions affect others—such as deciding whether to destroy a structure built by a friend in the sandbox. They also extend this empathy to plants and animals within the playscape, asking thoughtful questions: How would that bug feel if it were in a bucket without what it needs? How would that tree feel if we hit it with a shovel or peeled off its bark? Does the flower in our garden want to be picked? Do other creatures need that flower?



Children connect with nature and wildlife through imaginative play and sensory experiences like exploring the pebble harp in Lake Superior's redesigned playscape.