



# Empathy Explorers Program Report

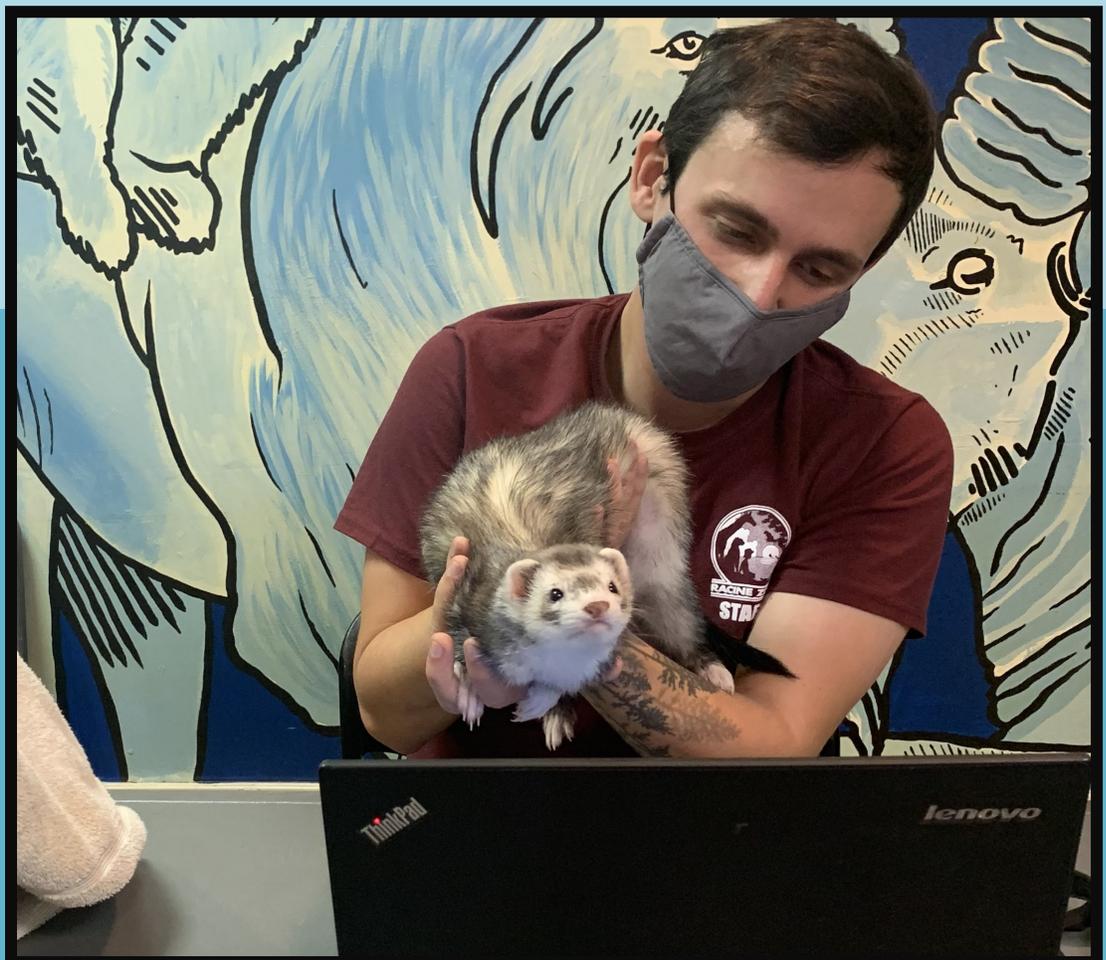
Racine Zoo 2020

Generously funded by  
Woodland Park Zoo



# Program Overview

Racine Zoo's Empathy Explorers program was designed to reinforce newly implemented socio-emotional learning curriculum in early elementary students, while using live animal programming to build empathy for wildlife. Funds from the Advancing Conservation through Empathy for Wildlife Network were utilized to pilot this program, allowing us to reach 154 students. The four major activities were divided into the techniques of individualization, perspective taking, modeling care, and anthropomorphism as is outlined in Suzanne Akerman's article *Best Practices for Building Empathy Through Live Animal Encounters* published in the Journal of Museum Education. For the initial run of these lessons, the Racine Zoo partnered with Gifford Elementary School in the Racine Unified School District. Gifford had begun implementing socio-emotional learning lessons centered around identifying emotions and mindfulness, which served as a knowledge foundation entering into these Empathy Explorers classes.



# Individualization



Individualization is the technique focused on during the first activity. In order to demonstrate how every animal is an individual, students met several Madagascar Hissing Cockroaches, learned about how their personalities are different, and named one of the cockroaches based on their personality. This activity highlighted the individual differences in how each of the

cockroaches typically acted and focused on the distinct differences in their personalities by giving them a name associated with their actions. Madagascar Hissing Cockroaches were chosen because they were the one species in our ambassador animal collection who do not already have individual names (we keep the ambassador cockroaches housed as a colony) and because these invertebrates are often perceived as all being the same by the general audience.

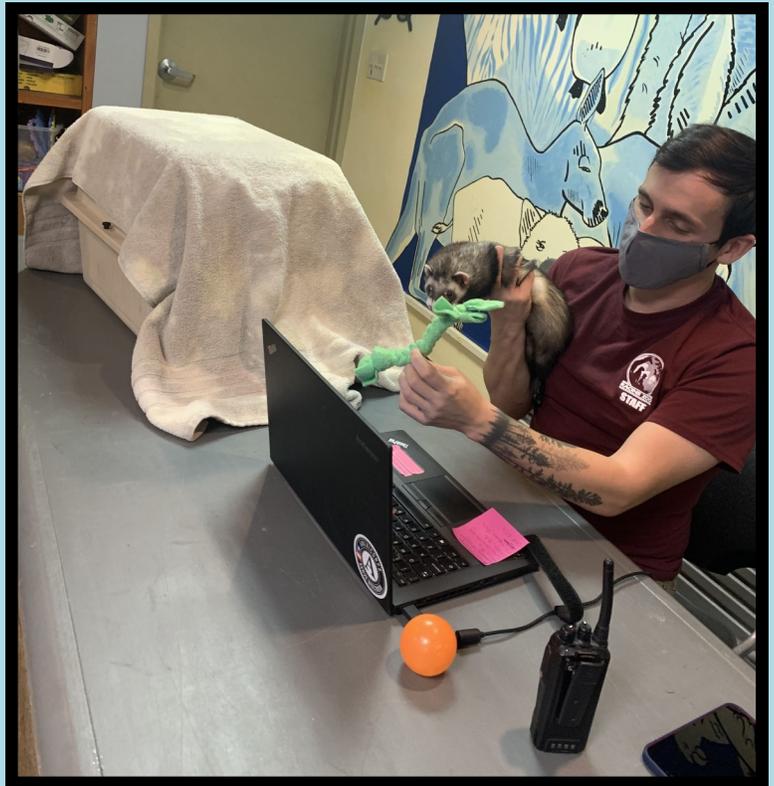
## Perspective Taking

Perspective taking was demonstrated by “stepping into the shoes” of a snake. Students practiced perspective taking by stepping into the shoes of other students in several stories, expressing how they think they would feel if they were in several different scenarios. Students then met one snake from our ambassador animal collection. After learning about the snake and how they prefer to be treated students were read several scenarios about the snake. Students stated how they might feel if they were a snake in each scenarios and what they would do as a person if they witnessed a snake in each of the scenarios.



# Modeling Care

Modeling care was the activity that changed the most from the in classroom lesson plan to the digital lesson plan. In the delivered programs, students were shown multiple pieces of enrichment from the zoo's collection. Students were asked to describe how the snake they met might potentially use each piece of enrichment, and then voted as a class on what enrichment we would give the snake that week in order to make them feel the happiest in their home.



## Anthropomorphism

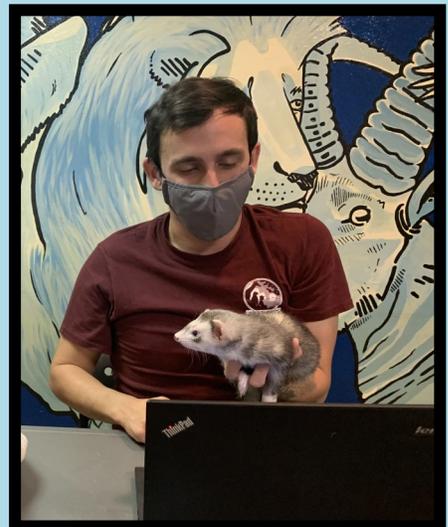
Finally, anthropomorphism was demonstrated by comparing human expressions of emotions to animal expressions. Students were asked to interpret several photos of people demonstrating different body language, facial expressions, and the sound of someone's voice. Students then demonstrated what different emotions looked like using their own body language, facial expressions, and the sound of their own voice. Finally, students were shown images and sounds from a variety of animals. Students were asked what emotion each animal was likely feeling. In some instances, these were purposefully made difficult. For example, images of sharks were often interpreted as "angry". In these instances, we discussed how animal emotions are sometimes shown very differently than our own, so it is important not to pass judgment unless you really know each animal and their behaviors well.

# Impact

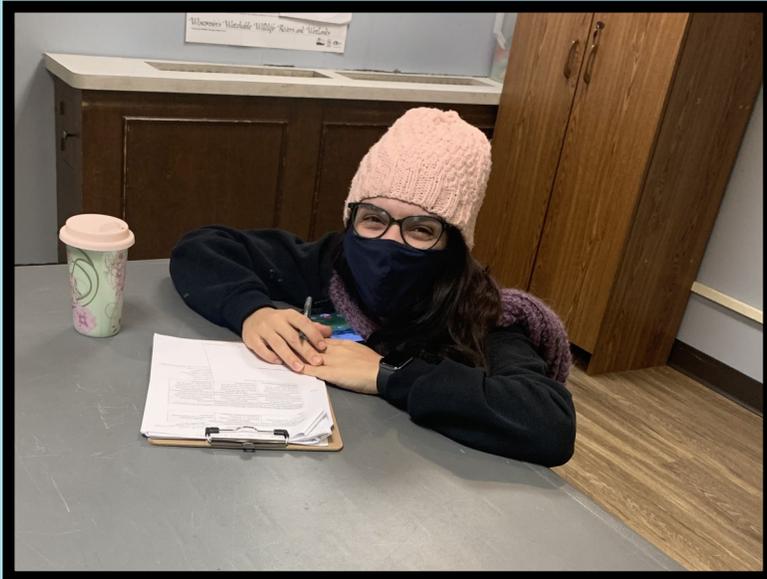
Empathy Explorers ran 21 half-hour classes. These classes reached 154 kindergarten students and totaled 10.5 hours' worth of empathy focused learning and 231 total engagement hours. Through the informal evaluation plan developed alongside the lesson plans, Empathy Explorers demonstrated overwhelmingly positive outcomes, particularly in the first activity.

The first activity, focused on individualization, showed some remarkable outcomes. In every single class when students were first introduced to the cockroaches, before they were given a name, students were asked how the animal made them feel and what they would do if they saw this animal in the wild. All classes gave a negative to neutral response to these questions. While some students in a few classrooms remarked that the cockroaches were "cool" or "neat," the overwhelming responses were "scary", "freaked out", or even "barfy". After interpreting the cockroach's personality and having the instructor name the first cockroach as an example, the class met a second cockroach, learned about its personality, and then voted on one of three names suggested by the class. After naming the cockroach the class was again asked to describe how the cockroach made them feel and what they would do if they saw this cockroach in the wild. Every single class had a new and overwhelmingly positive responses to the cockroach they helped name. Additionally, in subsequent classes students were asked if they remembered the cockroach they named, even in the final classes which took place five weeks after the first lesson, every class was correctly able to remember the name of their cockroach.

The three other activities all delivered positive outcomes as well. Based on the evaluation plans, students showed comparable interpretations of animal emotions and human emotions, demonstrated the ability to take the perspective of animals as well as they took the perspective of classmates, and the ability to choose items that would provide best care for an animal. Following our initial run of Empathy Explorers, our evaluation showed 154 kindergarten students are now better equipped to interpret and interact with animals they encounter in their lives.



# Challenges



*When video recording was not permitted, evaluation in a virtual setting was an unusual challenge.*

As part of the capacity building grant, one of our major goals was to develop a replicable class outline that could be transitioned into future empathy programming. Empathy Explorers was originally written and designed as in-classroom lessons. Due to the ongoing global pandemic and uncertainty around whether classes would be taking place in person or virtually this year, the programs were translated to a digital format. As a result, we have

developed both an in-classroom lesson and evaluation as well as a digital adaptation and evaluation. The initial run has provided tremendous feedback on how to best adjust the digital format, but in person lessons are necessary to properly make adjustment to the classroom version of the lessons. We also had some staff changes this year that shifted project leadership, although our proposed program lead did guide the project from conception to completion.

Teaching in a virtual setting has been a growing challenge on both formal and informal education institutions. While we were largely able to modify the curriculum for a virtual setting modifying the evaluation plan proved to be a more difficult task. Unfortunately, due to school regulations this year we were unable to record classes or invite additional evaluators into the classroom. While our evaluation plan was largely based on informal questions from the class, we were unable to get individual data points on specific children over the course of all three lessons. Utilizing the evaluation plan provided good feedback for a broad overview of how individual classes responded to the lesson; our inability to gather data for individual students means the data collected is not as specific as we had originally planned.

# Challenges (cont.)

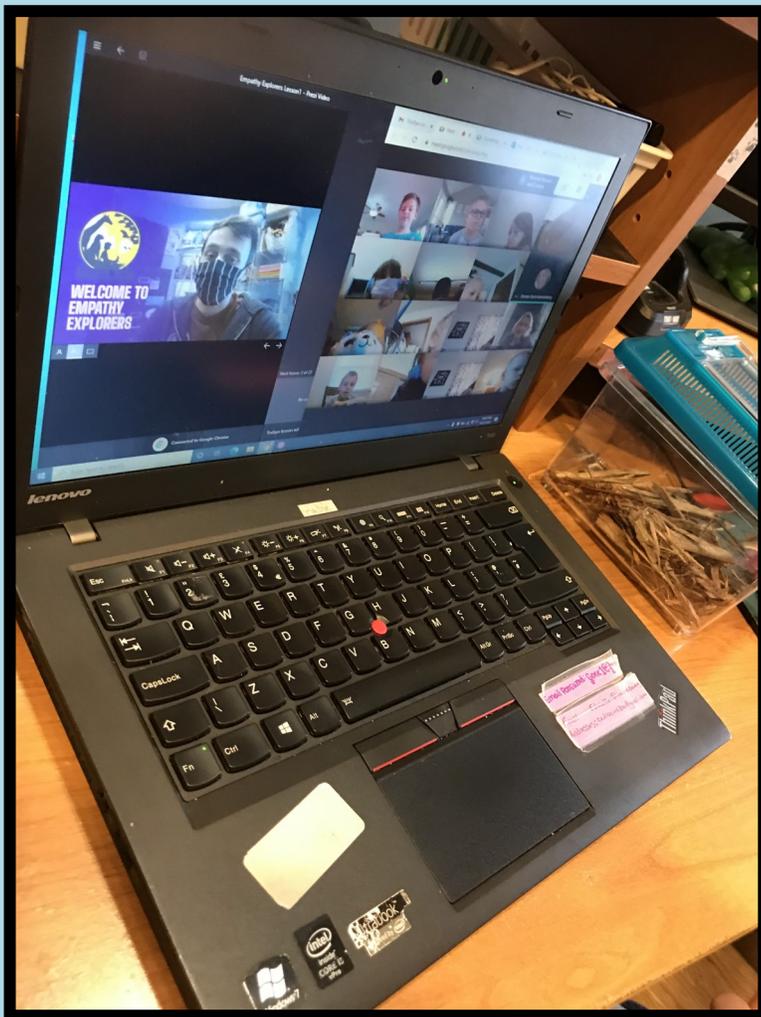
Hands-on activities also presented a challenge. One activity modeling care for a snake was an opportunity for students to actively create a piece of enrichment. This activity was designed to reach students who learn through group participation and tactile experiences. Instead, students were shown various pieces of enrichment from our enrichment storage. They then discussed how a snake might use each piece as enrichment and gave recommendations on which pieces would be best to give our snakes for enrichment. While students were largely successful at this task, it was less engaging and generally had a lower ceiling for showing proficiency in fostering care.

Originally, classes were designed as four activities spread over two one-hour classes. In the process of scheduling into virtual timeslots, we converted to four activities spread over three half hour classes. Not only did we lose half an hour from the originally planned lesson outline, but other time considerations played a large factor. Asking lots of questions of kindergarteners in a digital setting, spending additional time on introductions and reviews of previous lessons, and handling any technical glitches ate into planned learning time. In particular, the second class which paired perspective taking and fostering care felt very abbreviated and would have greatly benefited from additional time.



# Lessons for the Future

We feel Empathy Explorers will slot well into our existing model and district partnerships to become a free county-wide program in the next two years. The Racine Zoo plans to incorporate these classes into our scheduled renewal for AmeriCorps funding in the 2022-2023 year, and are exploring potential resources to fund a second, in-person pilot in 2021-22. With the replicable lesson plans, Prezi outlines, and evaluation plans developed through this grant, our educators will be able to deliver Empathy Explorer classes without modification from the current outlines. Continuing the kindergarten-based Empathy Explorers classroom will expand the reach of these lessons and continue the outcomes seen in the initial run of programming.



Additionally, The Racine Zoo is seeking funding for the fall 2021 school year to deliver further empathy-based programming. The current program skeleton of focusing on individualization, perspective taking, fostering care, and anthropomorphism could be used in other grade levels using activities that are more appropriate for other age ranges. Alternatively, each of the four activities could be expanded to focus more deeply on the concepts presented in each activity. Regardless, the development of programming for the 2021 year depends heavily on the ability to procure funds and the status of local districts.

Empathy Explorers 2020  
In Person Evaluation Plan  
Racine Zoo  
Funded by Woodland Park Zoo

# The Future of Empathy Explorers

The Racine Zoo plans to utilize this pilot to secure funding for an additional, in-person pilot next year, and plans to then roll Empathy Explorers into our existing free programs offered at public schools county-wide by the 2022-23 school year. Other institutions are encouraged to replicate and implement this program at their intuitions as well, and are encouraged to share feedback with the Racine Zoo.

## Supplemental Materials:

- Program curriculums, both for in-person classes and adapted for virtual learning
- Evaluation plans, both for in-person classes and adapted for virtual learning
- Empathy Explorers Pilot final program evaluation

When you ask someone how they feel about a cockroach and they reply, "I love them," while anecdotal, that feels like a major success. It is impossible to state just how astounded we were with responses to the naming a cockroach activity. Every single class showed a significant change in attitude from the initial introduction of a Madagascar Hissing Cockroach to their response to the cockroach that they had just named. Not a single student expressed negative, or even neutral, emotions to the cockroach that they had named. Considering the classes were delivered to 154 students, with largely negative initial emotions towards the cockroaches, these results were remarkable. Further, employees at the Racine Zoo, both in the conservation education department and in the animal care department, showed significant investment in the naming a cockroach activity. These were frequent topics of conversation amongst staff. Many of them expressed wanting to incorporate the same activity into other programs. This is one of many positive outcomes of this project, and we are excited to see the future of Empathy Explorers for years to come!