

## WILD EARTH:

KINGSTON MIDDLE SCHOOL NATURE CONNECTION AND EXPERIENTIAL EDUCATION PROJECT

September, 2023





### I. Introduction

Wild Earth's Kingston Middle School Nature Connection & Experiential Education Project brings nature-based learning and activities with a focus on social and emotional development to the Kingston City School District's (KCSD) two middle schools, Bailey Middle School and Miller Middle School, which serve students in grades 5 - 8. Wild Earth's Kingston project aims to enhance student growth and development in three wellness areas: 1) building inner character; 2) strengthening and supporting the social, emotional health and well-being of students; and, 3) regenerating healthy school and classroom communities. Wild Earth has been working in the KCSD for six years.

During the 2022-23 school year, the Kingston Middle School Nature Connection & Experiential Education Project focused primarily on fifth and sixth grade at Bailey Middle School and Miller Middle School; a fall field trip was conducted for fifth grade, the after-school program served fifth and sixth grades, and guided recess served all grades, but with a focus on grades 5 and 6. Wild Earth also worked with other KCSD schools, offering guided recess and after-school programming to 4th grade students at John F. Kennedy (JFK) and George Washington (GW) elementary schools and paid internships to Kingston High School students to serve as mentors and counselors-in-training at JFK.

Wild Earth contracted with The Benjamin Center for Public Policy Initiatives at SUNY New Paltz to document and assess the impact of the Kingston Middle School Nature Connection & Experiential Education Project. This report stems from that work.

### II. Research Focus and Design

This year's research efforts focused on the impact of the after-school program, with some attention given to guided recess. Four questions framed this work:

- 1. What elements of Wild Earth's approach nurture students' social/emotional growth and development?
- 2. What social/emotional growth does a regularly-participating student experience throughout the school year? Is this growth reflected in the school setting (interactions with peers, adults, engagement with academic content)?
- 3. What are the characteristics of students who engage with Wild Earth programming (is there demographic commonality) and what specific elements of Wild Earth program serve the needs of these student groups?

4. What role does guided, nature-based exploration and play have in nurturing students' social and emotional development?

To answer these questions, the Wild Earth team identified social and emotional learning (SEL) concepts, aligned with stated wellness areas and grounded in the SEL literature, that they believed would influence program impact. Table 1 depicts Wild Earth's identified wellness areas, their links to SEL concepts, and definitions of those concepts.

### **Data collection**

Qualitative data collection techniques were used to document Wild Earth program elements, particularly after-school programming, and to explore potential program impacts. Some quantitative data were used to further explore program impact.

<sup>&</sup>lt;sup>1</sup> Collaborative for Academic, Social, and Emotional Learning (CASEL), the CASEL framework. https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/#classrooms

TABLE 1. WILD EARTH-IDENTIFIED WELLNESS AREAS AND SEL CONCEPTS AND DEFINITIONS

WELLNESS AREA	SEL CONCEPT	SEL CONCEPT DEFINITION	
Building inner character	Health self-management	The ability to manage one's emotions, thoughts, and behaviors, including capacity to delay gratification, manage stress, and feel agency to accomplish personal and collective goals.	
Strengthening and supporting the social health and well-being of participants	Sense of belonging	Connection and commitment to classroom, school community, and Wild Earth	
	Confidence/ self-efficacy	Belief in self; taking responsibility for self and personal decision-making	
	Comfort with nature	Engagement with nature and outdoor environments, comfort in being outdoors and engaging in outdoor activities	
Healthy relationships that contribute to healthy communities (aftershool, school, classroom)	Positive peer relationships/ interaction  Positive adult realationships/interacation	Getting along well with peers, ability to work with peers toward larger goals  Continued, ongoing relationship with Wild Earth adult/ mentor, teachers, school staff	

*Interviews:* The research team interviewed staff at Bailey Middle School and Miller Middle school and at Wild Earth to explore different perspectives on Wild Earth's programming. The research team conducted interviews with:

- Six lunch monitors
- Three school administrators
- Six teachers and two staff members; these teachers taught general education, special education, and English Language Learner (ELL) students in fifth and/or sixth grade
- Two Wild Earth staff (2 interviews; beginning and end of the school year)

**Observations:** The research team observed a total of 12 after-school sessions across the two middle schools; five observations were conducted of fifth grade sessions and seven of sixth grade sessions. The research team additionally observed two guided recess sessions, one at each middle school. Finally, the team spent one day at JFK, observing Wild Earth staff's work during guided recess and with 4th graders in after-school.

Writing prompt: A writing prompt that was administered to participating middle school students during after-school sessions. Students were asked to write about their experience with Wild Earth; questions included: Why have you chosen to participate in the Wild Earth after school program?; What do you like most about Wild Earth? Give an example of something special that happened while you were at the Wild Earth after school program; Name one thing (or more if you want!) that you learned about yourself while participating in the Wild Earth after school program. Students were told that their participation was voluntary and that they could answer informally. They were instructed to exclude their name to maintain anonymity.

**Document analysis:** The research team analyzed afterschool attendance sheets at Bailey and Miller middle schools to collect information regarding participation.

**Recess referrals:** The research team analyzed disciplinary referrals issued during recess at Bailey and Miller middle schools to compare student behavior during guided recess days and non-guided recess days.

## III. Kingston Middle School Nature Connection & Experiential Education Project

The Kingston Middle School Nature Connection & Experiential Education Project has three component parts: 1) a full-day, nature-immersion field trip, 2) guided recess, and 3) an after-school program. The project was initiated in the 2017-18 school year with fall and spring field trips, guided recess, and after-school programming geared toward fifth grade in both KCSD middle schools. The initial plan was to add a grade level each year thereafter, rolling up until all programming was offered to all students in grades 5 - 8. In 2018-19, Wild Earth's Kingston program expanded to include grade 6. Complications with the school schedule prevented full implementation to the 7th grade and 8th grade in later years. To further complicate matters, the project was cut short in 2019-20 by the COVID-19 pandemic. During the 2020-21 school year, even though much schooling was remote, Wild Earth offered guided recess on days that students were in school. Kingston Middle School Nature Connection & Experiential Education Project began to rebuild in the 2021-22 school year and in 2022-23, Wild Earth regained much of its presence in Kingston middle schools with programming serving primarily grades 5 and 6. In the 2022-23 school year, programming for the Kingston project included:

Field Trips: The Wild Earth staff conducted field trips for the entire fifth grade class in both schools. Each trip was staffed by nine Wild Earth instructors. Field trips ran from morning until mid-afternoon. During the morning session, students were divided into small groups to enable deep immersion into a specific skill and outdoor experience. The group then came together for lunch. After lunch, Wild Earth staff offered a range of activities from which students could choose. Classroom teachers, guidance counselors, and aides also attended the field trips; school staffing was determined by the school's assessment of the needs of the students on each field trip.



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Guided recess: Wild Earth staff conducted two guided recess sessions at each middle school each week. Seven or eight Wild Earth instructors were present at each guided recess, which served all grades.<sup>2</sup> During guided recess, Wild Earth instructors offered a range of activities for students. Activities were designed to provide specific experiences, such as team building, perseverance, engaging with nature, or to offer an outlet for students' midday energy. Activities changed from week to week to provide variety for students and in an effort to engage different students each week.

After-school program: Wild Earth convened its after-school program twice a week at each middle school, with one day serving fifth grade students and the other serving sixth grade students. Programming took place during the regular after-school activity period, which was open to all students; late buses that brought students home after the activity period made this programming accessible to all. Wild Earth was just one of many after-school options from which students could choose and students participated on a

voluntary basis. Wild Earth after-school activities always involved a craft or hands-on nature activity and different games designed to build community building and teamwork.

Guided recess and after-school activities were joined by a curricular theme that was carried through all activities. For example, one weekly theme focused on "animals that live in developed spaces," which encouraged students to think about the animals they might find surrounding their homes and schools and in their city. Guided recess activities aligned with this theme; a nature table displayed relevant animal skeletons and hides, students were invited to craft animals from pipe cleaners, and big-energy games, like swarm tag, encouraged students to mimic the behavior of animals that live in these spaces (while also providing an outlet for students' energy). After-school programming was also aligned with this theme; participants crafted felted animals and played games that involved animal facts and knowledge. This thematic continuity lent cohesion to Wild Earth programming.



### **IV. Findings**

All school stakeholders were very enthusiastic about Wild Earth's Kingston Middle School Nature Connection & Experiential Education Project. School administrators, guidance counselors, teachers, teacher assistants, and lunch monitors spoke very highly of all aspects of the project. "I love Wild Earth. Kids get exposure to outdoors, teaching about nature. They are in awe on the fieldtrips and the staff is just amazing," "I love having Wild Earth here. The more we can build on their program, it would be great for our school," were just a few of the positive and supportive comments that we heard from school staff during data collection. Students were enthusiastic as well. One student wrote that they participated in Wild Earth because of the "Wild Earth workers and how funny they are but they also make you feel welcomed and to be yourself [sic], last I love the outside and crafts." Another student reported that through participation in Wild Earth, they learned that they "love to be outside." One student happily proclaimed, "I met my best friend!" at Wild Earth.

With consistent engagement over the past six years, Wild Earth is now woven into the fabric of both middle schools. Wild Earth has become a fixture on the playground and during the after-school period. "Wild Earth is part of the school's SEL foundation. When planning for the coming school year, Wild Earth is automatically included," one administrator stated. In addition, Wild Earth is included as a community partner

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The Wild Earth counselors are funny and make you feel welcome and you can be yourself around them.



in the KCSD's district-wide safety plan, a New York State Education Department-required plan that is revised and submitted to the state each year.

Quantitative measures show positive outcomes for Wild Earth's guided recess and after-school sessions. Data about disciplinary actions during recess show fewer incidents on days when Wild Earth led guided recess for grades 5 and 6, the target grades. Although we cannot claim that Wild Earth's presence caused this outcome, the data suggest a positive impact of Wild Earth's guided recess programming for these grade-levels. After-school attendance shows that the program reached 25 percent of KCSD fifth and sixth graders with more than half of the students participating more than once.

<sup>&</sup>lt;sup>2</sup> Wild Earth instructors remained on site from guided recess through after-school, so it made sense to serve all grades through guided recess, even though the Kingston project focus for 2022-23 was grades 5 and 6.

Qualitative research finds evidence of the SEL concepts — healthy self-management, positive peer and adult interactions/relationships, sense of belonging, confidence and self-efficacy, and comfort in nature — in Wild Earth activities and in Wild Earth instructors' interactions with students. The research team also noted instances of student growth in these areas. Overall, we find that Wild Earth's Kingston Middle School Nature Connection & Experiential Education Project, is an asset to the Kingston City School District.

### A. Wild Earth by the numbers: guided recess

The research team examined disciplinary referrals that were issued during recess as a way of exploring the impact of Wild Earth's guided recess program. These referrals are a measure of student behavior during the recess period. Although it is impossible to establish a direct causal link between guided recess and student behavior (we cannot claim that guided recess caused any particular behavior or lack thereof), disciplinary referrals provide an indication of student behavior, and overall climate, during the recess period.

The research team examined data over four months: October, November, March, April. This narrowed the scope of data collection for school administrators and avoided months in which data might not be representative (beginning and end of the school year). Data were then divided by "guided recess" and "non-guided recess" days for each school.

Table 2 shows the raw number of disciplinary referrals and then the average number of referrals issued during recess for the months October, November, March, and April for both Bailey and Miller middle schools, grades 5 – 8. Using the average referrals, the data show that for grades 5 and 6, there were fewer disciplinary referrals on days that Wild Earth conducted its guided recess program. For grades 7 and 8, the pattern is reversed. It is important to note that the overall numbers are quite small, with the largest being an average of .6 referrals during a recess period (fifth grade, non-guided recess day).<sup>3</sup>

The data suggest a positive relationship between Wild Earth's guided recess and student behavior/climate on the playground for grades 5 and 6. Although we cannot claim that Wild Earth's presence caused this outcome, the data indicate a positive impact of Wild Earth's guided recess programming for these grade-levels. It would be easy to conclude that this outcome is due to the additional staffing on guided recess days. But the qualitative data suggest that these outcomes are not just about additional supervision. Discussions with school staff, notably administrators and lunch monitors, highlighted the importance of offering engaging activities as well as

TABLE 2. DISCIPLINARY REFERRALS ISSUED DURING RECESS, OCT/NOV/MAR/APRIL, 2022-2023

GRADE	RAW NUMBER, REFERRALS GUIDED RECESS	RAW NUMBER, REFERRALS NON-GUIDED RECESS	TOTAL REFERRALS	AVERAGE REFERRALS GUIDED RECESS	AVERAGE REFERRALS NON-GUIDED RECESS
5	9	27	36	.28	.60
6	7	16	23	.22	.36
7	11	13	24	.34	.29
8	5	0	5	.16	.00

<sup>&</sup>lt;sup>3</sup> We use the average number of referrals for discussion instead of the raw number because there were more non-guided recess days each week than guided-recess days.



pro-social outlets for students' midday energy during unstructured recess periods. "We see fewer behavior incidents [when Wild Earth is here] because there are productive activities and connections with Wild Earth instructors. The kids are engaged in productive play." Beyond providing engaging activities for this unstructured recess time, school staff also felt that the relationships with Wild Earth instructors helped to mitigate behavior issues on the playground. One lunch monitor stated, "The kids know the Wild Earth staff and can talk with them about personal matters, school issues, or whatever is causing them trouble. [Wild Earth instructors] provide an outlet that other adults in the school can't give them. Said another monitor, "We wish they [Wild Earth] were here every day."

Of course, the presence of Wild Earth staff during guided recess also means having more adults watching for and

preventing incidents that could result in disciplinary action. One lunch monitor recalled addressing a volatile incident with a group of students; a Wild Earth staff member came over to offer support. School administrators and lunch monitors appreciated this extra support and explained that the presence of additional adults is very helpful during the recess period.

Data for grades 7 and 8 show a different pattern. Here, the number of disciplinary referrals is greater, on average, on guided recess days compared to non-guided recess days. School administrators and monitors noted a difference in engagement between the younger students and older ones. "Fifth and sixth grade are much more engaged [with Wild Earth] than seventh and eighth." One administrator attributed this to seventh and eighth graders being "harder to reach," and preferring to spend time with friends or on social media during recess. One monitor

TABLE 3. NUMBER AND PERCENT STUDENT PARTICIPATION IN AFTER-SCHOOL TOTAL AND BY GRADE<sup>4</sup>

	MILLER MIDDLE SCHOOL	BAILEY MIDDLE SCHOOL	TOTAL/ AVERAGE %
Total 5th grade enrollment	250	232	482
Number, 5th grade students who participated in Wild Earth after-school	73	63	136
Percent, 5th grade students who participated in Wild Earth after-school	29%	27%	28%
Average number of students per session	13	12	-
Total 6th grade enrollment	200	217	417
Number 6th grade students who participated in Wild Earth after-school	43	43	86
Percent 6th grade student who participated in Wild Earth after-school	22%	20%	21%
Average number of student per session	8	10	-

noted that Wild Earth does engage these older students nonetheless, "Wild Earth staff will play basketball with the [older] students who aren't engaged in the activities. They will accommodate students' needs and what they want to do."

Wild Earth staff also noted difficulty engaging older students in guided recess activities. They attributed this, partly, to interrupted relationships due to COVID-19; the full Kingston project was not implemented when the current seventh and eighth grade students were in fifth and sixth grade. "COVID-19 interrupted the cadence, there is not the same connection with current seventh and eighth graders as with other grades or as in past years." Due to program interruptions, Wild Earth instructors felt that they were not able to establish connections and

develop relationships with current seventh and eighth graders, which, they felt, contributed to reduced participation of students in these grades. Again, the number of referrals for these grades—especially eighth—is quite small. Nevertheless, these dynamics may help explain the reversal in the data pattern for fifth/sixth to seventh/eighth grade.

### B. Wild Earth by the numbers: after-school participation

After-school sessions were hosted for fifth and sixth grade students separately, one day a week at each school. Students signed up to participate in after-school during the school day. Wild Earth after-school sessions followed the same general structure each week. Students were greeted by staff and offered a snack upon their arrival. The

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FIGURE 1:. MILLER 5TH GRADE, REPEAT PARTICIPATION IN AFTER-SCHOOL PROGRAM, TOTAL 73 STUDENTS

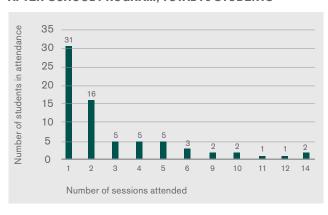
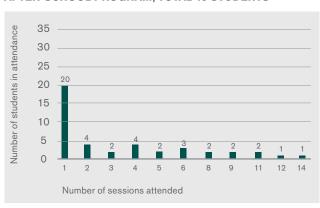


FIGURE 3:. MILLER 6<sup>TH</sup> GRADE, REPEAT PARTICIPATION IN AFTER-SCHOOL PROGRAM, TOTAL 43 STUDENTS



program began with expressions of gratitude; staff provided the students with a prompt to reflect on and voluntarily share a point of gratitude in their lives. This was followed by a group discussion about expectations and group norms. Instructors then led students through crafts and physical activities related to the theme of the week.

Prior to each session, instructors met to determine the flow of the after-school session. During this meeting, instructors decided who would facilitate each component of the afternoon, which games best complemented the planned activities, and how the afternoon would flow. Since student participants were known in advance, instructors sometimes discussed, or sought guidance

FIGURE 2:. BAILEY 5<sup>™</sup> GRADE, REPEAT PARTICIPATION IN AFTER-SCHOOL PROGRAM, TOTAL 63 STUDENTS

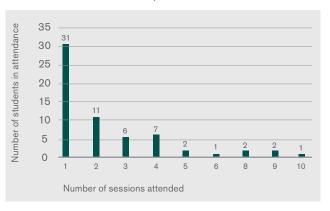
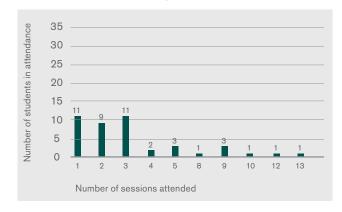


FIGURE 4:. BAILEY 6<sup>TH</sup> GRADE, REPEAT PARTICIPATION IN AFTER-SCHOOL PROGRAM, TOTAL 43 STUDENTS



about, how to engage with a particular student or how to manage an issue that had emerged during guided recess. After each session, instructors met to reflect on the afternoon, identify "red, yellow, and green flag" moments, and discuss ways to improve the program in the future. During these meetings, staff often sought support and feedback from one another about a particular incident or discussed how to address issues with a particular student. These meetings were a core source of support for instructors and also served to guide and enhance future programming.

Wild Earth conducted 22 after-school sessions each for Miller and Bailey fifth and sixth grades during the 2022-23 school year. This programming reached 136

ollowed these consistently throughout the process of analysis.

<sup>&</sup>lt;sup>4</sup> Researchers analyzed attendance sheets that had been collected by Wild Earth instructors. It is possible that some attendance sheets were missing or incomplete. In addition, researchers had to decipher students' names, which were handwritten by the student, on the attendance list in order to count them (see also Figures 1 − 4). This was an inexact science, as some names were difficult to read. The research team developed "rules" for when there was a question about a student/name and followed these consistently throughout the process of analysis.

# Kids who participate in the after-school program are dev eloping skills for interacting positively with one another. "



students in grade 5 and 86 students in grade 6. This equates to 28 percent and 21 percent of fifth and sixth grades in KCSD, respectively. Table 3 shows after-school participation by school and by grade.

Figures 1 – 4 show frequency of student attendance, that is, the number of students who attended Wild Earth after-school programming once and more than once. For example, Figure 1 shows that more than half of the fifth-grade participants at Miller Middle school attended Wild Earth after-school more than once; 31 students attended only one Wild Earth after school session and 42 students attended more than one. Figures 2 -- 4 show a similar pattern, with more than half of attendees participating more than one time. In raw numbers, Miller grade 5 had the greatest number of repeaters; Miller grade

6 had the fewest (figures 1 and 3, respectively). Bailey sixth grade had the lowest number of one-time participants, and then three times the number of repeaters as those who attended only one session (figure 4). This repeat participation – and its consistency across grades and schools – suggests that participating students valued Wild Earth after-school programming and chose it as their after-school experience multiple times.

Anecdotally, the research team noted that student participants in Wild Earth after-school were very diverse, including students of color, ELL students, and neurodivergent students. Wild Earth seemed to offer an enclave here; instructors were accommodating to the needs of all students and, likewise, encouraged grace and compassion from student participants. Said one teacher of students with special needs, "My students are special needs. The Wild Earth staff is well-equipped to work with them and to handle the issues they bring . . . There is no judgment . . . kids can just be."

# C. Wild Earth in context: Social and emotional learning and guiding questions

The guiding questions frame the discussion of qualitative findings, with the SEL concept areas as the mechanisms through which Wild Earth enacts its work. Again, we focus here on after-school programming, though in some instances teachers or administrators spoke to the impact of guided recess or field trips.

Wild Earth's program activities encouraged student engagement in its identified SEL concept areas. The activities on a given after-school session would necessitate positive engagement with peers (i.e. teamwork) and exploration of the natural world, for example. SEL concept areas guided staff interaction with students; staff worked with students to develop skills for self-management and were deliberate about fostering positive relationships among students and between Wild Earth staff and students. During observations of after-school programming, the research team saw evidence of healthy self-management, positive peer interaction, positive adult

interaction, and sense of belonging. Evidence of confidence and self-efficacy was observed less frequently. The concept area "comfort with nature" evolved from an initial conception of comfort in the woods and local forests, to an awareness of the natural world in students' everyday context – their home, their school, their city. Following we detail observational evidence of Wild Earth's work in the context of its SEL focus, and as this evidence relates to the research questions.

# Question 1: What elements of Wild Earth's approach nurture students' social/emotional growth and development?

Wild Earth's focus on healthy self-management, positive peer and adult interaction and relationships, and fostering a sense of belonging helped to nurture students' social and emotional growth and development. In addition, the actual structure of the after-school sessions provided a stable foundation from which students could grow and learn.

**Healthy self-management:** Wild Earth gave [my students] a foundation for how to work through difficult moments. They also modeled behavior and mediation." Teacher

Wild Earth instructors helped students develop selfmanagement skills through modeling and by working directly with students through difficult moments. When one student's behavior in the after-school activity became unruly and interrupted the group, Wild Earth instructors altered the day's activities to model strategies for selfmanagement. Staff members introduced the Sit Spot activity, in which students sit apart from one another for a short period of time and focus attention on their surroundings; what they hear, see, smell, feel, and taste. When the students and instructors regrouped, this youth was ready to re-engage and shared, with calm interest, his experience of the Sit Spot. This activity helped reground this student and also modeled a strategy for selfmanagement. This student was able to appropriately participate in activities for the remainder of the session.

In another instance, students arrived at Wild Earth after-school with pent-up energy from sitting through a day of standardized testing. Three students asked Wild Earth staff if they could run around the blacktop while the rest of the students had a snack. Staff acknowledged the students' need and allowed this energetic play. When called back to the circle, students engaged productively for the rest of the afternoon. Here, students showed an ability to reflect on their needs, emotions, and physical being. This incident also illustrates the safe, comfortable culture fostered by Wild Earth staff.

Signs of strengthened self-management skills were noted by teachers and staff members. One teacher valued Wild Earth's ability to provide students with outlets that are "soothing and centering," which she felt impacted their demeanor in her classroom upon return from a guided recess. Another teacher recounted her experience with two students who were aggressive toward one another during a Wild Earth field trip. Wild Earth instructors worked with the students to deescalate their behaviors. "Wild Earth staff were so good [with those students]. [Instructors'] demeanor, their approach – they helped to calm the kids, helped them walk through the emotions they were feeling, helped them calm down, helped them identify a way that

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Wild Earth gave [my students] a foundation for how to work through difficult moments.

They also modeled behavior and mediation.

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they could both "be" on the field trip, and then helped them reengage with field trip activities." This teacher further explained, "We were then able to use this incident later, in the classroom, as a reference, and as an example of a way that they were able exert control over themselves." Another teacher, however, felt that the regulation and self-management noted during field trips did not translate into changed student behavior in the classroom; "the self-regulation that students are able to practice and exhibit on the field trip doesn't really follow them back into the classroom." He attributed this to the special environment created on a Wild Earth field trip and the difficulty replicating that in the classroom. He hoped that this was something he could work on with Wild Earth in the future.

Positive peer relationships/interaction: "Wild Earth is a safe space. Kids can engage in all kinds of activities. Sometimes they get involved in [activities] that they wouldn't normally and they interact with kids they wouldn't normally play with." School administrator

Wild Earth aims to build and strengthen interpersonal relationships, particularly among students, through its Kingston programming. Games played during guided recess and after school were designed to nurture

relationships among students. Games like Foxtail Tag and Zookeeper promoted teamwork and collaboration. Other games like the Floor is Lava required participants to be strategic and work with peers while also making individual choices. All Wild Earth games required students to work and play together in some way.

This peer-level collaboration was especially important to a teacher of students with special needs. This teacher explained that her students have difficulty forming friendships outside of the classroom (she was quick to note that this was likely due to the self-contained nature of her class, and not bullying or animosity from other students). She explained that Wild Earth activities and instructors engage her students in a way that promotes friendships and positive peer connections; her students reap the benefits of this, she believes. Likewise, a teacher of ELL students explained that Wild Earth activities, particularly as they are craft- and play-based, create opportunities for ELL students to connect with English-speaking peers.

Wild Earth is deliberate about nurturing peer connections in its programming. During debriefing sessions, staff noted which activities best promoted teamwork and then prioritized similar activities in future sessions. Staff also discussed individual students who

seemed to struggle with peer connections and developed strategies for supporting those students; in some instances, the team assigned a "point person" to, subtly, support those students in developing relationships with peers.

**Positive adult relationships/interaction:** "The activities Wild Earth does are good, but the connections they make are most important." Teacher

The structure of Wild Earth's Kingston project—intensive nature-based experiences for fifth grade (field trips), biweekly guided recess, weekly after-school program for grades 5 and 6, and consistent staffing at each school—meant that students were interacting with Wild Earth staff on a regular basis throughout the school year. This sustained and consistent contact facilitated relationships between students and these adult mentors. Further, the continued engagement of Wild Earth staff through the Kingston project over the years, even with the COVID-19 interruption, has provided continuity, and stability, of connection. This can be seen in long-standing relationships between students and Wild Earth staff.

Teachers, school administrators, and lunch monitors all remarked on the significance of these relationships. As explained by one staff member, "[The students] need someone to confide in and Wild Earth is that for them." An administrator agreed, "Wild Earth has a strong relationship with the students. Students seek them out when they are having issues or they are struggling." Wild Earth seeks to nurture these connections in ways that resonate for, and thus engage, these adolescent students. Interactions were often personal and specific; when students arrived at the after-school program, they were greeted with a special nickname, engagement in conversation about a mutual interest, or inquiries that referenced past conversations about that student's world - friends, family, sports, academics. Wild Earth instructors ensure that they stay current with teenage trends and colloquialisms, so that they can communicate with students about what interests them.

The first thing students will ask on Monday is,
"Is Wild Earth here?"



Wild Earth staff prided themselves on nurturing connections with students; in debrief sessions they shared knowledge of students' interests, talked about ways to engage shy and reticent youth, and practiced Spanish phrases to better connect with ELL students (there was even a suggestion to begin language classes as part of Wild Earth's professional development). It was clear also that students value their connection to Wild Earth instructors; researchers witnessed many "high-fives" and quick conversations in the hallway before official programming started for the day, and relationships with the instructors featured prominently in students' writing about the after-school program. According to one lunch monitor, "The first thing students will ask on Monday is, 'is Wild Earth here?"

Wild Earth leaned on these relationships to model positive adult interactions, interacting with students in a way that would be instructive for their interactions with other adults in the school. This was often a deliberate effort; Wild Earth staff acknowledged moments of positive interaction and also corrected students when their interactions veered from productive or positive. When one student reacted gruffly to being given directions for an activity, a staff member calmly corrected his behavior. In another instance, a Wild Earth staff member pulled aside a young man who was speaking rudely to instructors and worked with him to think about other ways to engage. This young man later rejoined the group with an apology to the other staff members. While the relationships formed through Wild Earth, and the modeling of positive interactions, improved behavior in after school

# Giving them the opportunity to step out of their comfort zone was meaningful.

programming over time, it is difficult to determine whether this extended to other adults outside of the Wild Earth context.

**Sense of belonging:** "Kids love when Wild Earth is at school. They are so welcoming with their games, everyone is included. There is definitely a sense of belonging within Wild Earth." School staff

Wild Earth aims to develop a sense of community and belonging in, and through, their programming. That is, they seek to create community among those who participate in their field trips, guided recess, and afterschool programs and then hope to parlay that sense of belonging to apply to the classroom and school communities of which students are a part.

Wild Earth was successful in creating a sense of community and belonging within its own programs. Beginning each after school session with 'expressions of gratitude' set a positive and inclusive tone; students often shared poignant, and vulnerable, stories about their lives. These were treated with respect by other participants in the program. Even simple actions, which are a staple for Wild Earth instructors — a boisterous welcome, engagement on topics of interest, complemented on a new pair of sneakers, a follow up on a past conversation — made students feel welcome and comfortable.

It is more difficult to assess whether the sense of community and belonging generated during after school translated into a deeper sense of belonging at school. Most teachers were not able to make this link. However, some teachers cited field trips as a place where Wild Earth programming did extend to a deeper classroom community. One teacher described a trust-building activity in which the teachers were blindfolded and guided by their students. This activity, she explained, "engendered trust in the classroom" and "…helped us all feel more connected to each other and responsive to each other."

Confidence & self-efficacy: On the field trips, "all of the sudden [students] feel like they have a new skill set; life skills and physical skills and it makes them proud." Teacher

Confidence and self-efficacy were more difficult for researchers to identify; these are very internal and individual domains and their expression is not always apparent. However, researchers did observe instances in which staff members worked to build students' confidence and sense of self-efficacy. During one after-school session, a student with special needs expressed their hesitancy to take part in a craft, stating they were worried about "doing it wrong." A staff member sat with the student and walked them through each step of the craft at a pace more suited to that child. This student finished the craft on their own time and was proud of their accomplishment. Likewise, when students expressed concern that their volcanoes wouldn't look like the model during a volcanomaking activity, the leading staff member told the students "real volcanoes aren't perfect, so yours don't have to be either." This alleviated students' concerns and served as a reminder to be proud of their creations.

Teachers of ELL students felt that Wild Earth activities provided an avenue for confidence building for their students. After a day of working hard to speak and learn in a non-native language, Wild Earth provided an opportunity for engagement in non-academic space. One teacher explained that the experiential and hands-on aspect of the program curriculum creates a space where "there is visual learning and engagement and they can create, and where the focus isn't just on reading and writing."

Wild Earth was deliberate about integrating the SEL constructs into their work and to nurture the social and emotional growth of students who participated in their program. Beyond these concepts, the program structure and routine that guided the after-school sessions also helped to nurture students' growth and development. Each after-school session followed the same pattern — welcome, snack, gratitude, expectations, games, craft, more games. Within the familiar cadence of each session,

students could attend to the more complicated business of adolescence, building friendships, managing emotions, unwinding from a complicated day. Expressions of gratitude and discussion about behavioral expectations for the session set a respectful, gracious, safe – and fun — tone at the very beginning of each session. This dependable routine provided a sense of stability and predictability for students and contributed to their comfort at Wild Earth after school sessions.

Question 2: What social/emotional growth does a regularly participating student experience throughout the school year? Is this growth reflected in the school setting (interactions with peers, adults, engagement with academic content)?

It is difficult to assess the social and emotional growth of regulatory-participating after-school students. First is the challenge of "regularly participating;" most participants in the Wild Earth after-school program attended more than once, but very few attended more than 3 or 4 times. Instructors agreed that this was difficult to measure, and cited consistency of participation as a general challenge for Wild Earth. When pressed, they felt that they saw the most impact in the areas of healthy self-management, positive peer interaction, and positive adult interaction, specifically enhanced confidence in relating to adults.

The question of whether outcomes seen during Wild Earth activities extend to other aspects of schooling is also difficult to measure. There are some cited examples – strategies for self-management learned on field trips that were then used in the classroom later (often with teacher coaching) and engagement with a variety of peers on the playground during recess. But some teachers claim the opposite, "in the woods [field trip], students are kinder, but that doesn't last long or follow into the classroom." There is "magic" in a Wild Earth setting, said one teacher, that does not necessarily make its way back to the school or classroom.



Question 3: What are the characteristics of students who engage with Wild Earth programming (is there demographic commonality) and what specific elements of Wild Earth program serve the needs of these student groups?

Wild Earth aims to reach a diverse group of students through its programming. Researchers noted diversity of participants during after school observations. Over half of participating students were students of color (54 percent), which is slightly higher than the demographic composition of the middle schools combined, at approximately 50 percent students of color. After-school participants were slightly more female than male participants, reflecting the gender composition of the middle schools. Wild Earth's after-school programming also served students with special needs and non-binary students. When students were asked what they liked most about Wild Earth, one student replied that they appreciated that staff used their preferred name and pronouns without questions or awkwardness.



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It takes so much energy for [ELL students] to make it through a day listening in English and translating in their heads. But Wild Earth is such an outlet. [ELL students] can be successful in a physical space, there is visual learing and engagement, and they can create. It's a comfortable space for them. \*\*\*

Wild Earth after-school programming also attracted many ELL students. After a day of hard work speaking and learning in a non-native language, Wild Earth provided an opportunity for engagement in non-academic space. One ELL teacher reflected, "It takes so much energy for [ELL students] to make it through a day, listening in English, translating in their heads and sometimes not understanding, which can be frustrating and exhausting. But Wild Earth is such an outlet. [ELL students] can be successful in a physical space, there is visual learning and engagement, and they can create, and the focus isn't just on reading and writing. It's a comfortable space for them." Another ELL teacher used Wild Earth as an incentive for her students to receive extra help after school; after they finished working with her, they could attend the second half of Wild Earth's after-school program. Wild Earth provided a respite for her students, and she encouraged their participation.

# Question 4: What role does guided, nature-based exploration and play have in nurturing students' social and emotional development?

Wild Earth's vision for engaging students with nature has changed over the course of the Kingston project. Initially, increasing access to nature for students living in predominantly urban areas was the driving force of Wild Earth's Kingston project. "We wanted to bring outdoor education to students in Kingston," said one instructor reflecting on that time.

But Wild Earth's perspective has changed, given its work with Kingston students and the realities of environmental racism and classism, which can, in turn, impact students' experiences and perception of nature. Wild Earth now seeks to redefine what it means for students to have a relationship with nature. "Nature/nature-oriented spaces often feel exclusionary for people of color," explained one

instructor. "Wild Earth fell into this trap at first. We approached nature as "nature church," "the untouched land." [This is] the conservation perspective, this is very much from white leadership. Wild Earth's orientation has shifted so that now, we talk with students about the nature that is close to us, and value in the everyday nature – the grass that grows between the sidewalks. Nature should feel safe for everyone." This reorientation includes using nature as a tool for social-emotional learning, a backdrop and a bridge for relationship-building and social and emotional development. Wild Earth aims to show students that nature has individual and personal meaning, and that there are many ways to experience it.

Wild Earth after-school programming embodies this approach by educating students about nature topics relevant to them: local ecosystems, current weather events, creating a greener community, looking for nature on the playground. This translates to activities that use local raw materials – deer antlers found in the woods, beeswax, composted material, food waste, wood found on the playground – in nature-based activities and crafts. Students eagerly engaged in a variety of nature-based crafting and activities, from candle dipping, to making necklaces from deer antlers, to felting. And they were always pleased to be able to bring their crafts home.

During one after-school session, students used nets to catch insects on the school's playground. Each time a butterfly was caught, it was quickly placed into a jar to be examined and discussed before it was set free. Later in the session, students collected spiders in a jar and watched with mature fascination as the spiders began to cannibalize each other. Wild Earth treated this incident with calm respect and engaged students in a way that created a sense of curiosity and wonder, rather than agitation or disgust. This programming, right on the school's playground, demonstrated to students that

Wild Earth staff spent the day with students, steeped in the culture and tenor of the school on that particular day. This continuity strengthened relationships between instructors and students, and the school community more generally, as Wild Earth's consistent presence rooted them in the school.

nature is, indeed, accessible and can flourish even in urban spaces.

Wild Earth worked hard to establish nature as a neutral space. "The woods don't care how cool or how smart you are," is a favorite refrain of one instructor. Teachers agreed that Wild Earth, and in particular the field trips, provided a nonacademic setting for students to demonstrate skills and knowledge that might not be evidenced in the classroom. This was an important discovery for some teachers, who were able to recognize students' nonacademic strengths in this nature-based setting and then refer to them later to bolster students' confidence in the classroom. "Nonacademic success in a school-related space gives kids confidence but also shows teachers a different side of kids, their different strengths." one teacher noted. This dynamic was particularly meaningful for teachers of ELL students and students with special needs.

### Additional observations

Outside of the wellness areas and the SEL concepts, Wild Earth established a unique role for itself in the school setting. This is partially due to the project design, in which Wild Earth instructors remain at the school site for most of the day, from lunch though guided recess and then after-school. This scheduling helped ground Wild Earth staff in the school community. Wild Earth staff spent the day with students, steeped in the culture and tenor of the school on that particular day; they weren't just showing up for an afternoon gig. This continuity strengthened relationships between instructors and students, and the school community more generally, as Wild Earth's consistent presence rooted them in the school.

Wild Earth's unique role further extended to the instructors themselves. School staff lauded Wild Earth

staff's ability to mediate situations and support students while still holding them accountable. Wild Earth staff were particularly adept at balancing the role of mentor while also commanding respect. Reflecting on the unique position of Wild Earth in their school, one administrator stated, "It is a helpful dynamic that Wild Earth instructors are not teachers, not administrators. This enables kids to listen to them in a different way. They have authority, but they are also cool, and they are not going to give you a grade or call your parents. They are there solely for the kids and the kids know that. They are accessible, friendly, cool, and very well-trained." Another administrator agreed, Wild Earth staff have "authority, but it isn't from a punitive place or a power perspective. This changes the dynamic they can have with kids. They can hold them accountable and also be cool because they are outside of the power structure of schools." And another school staff member noted the value of Wild Earth staff as relatable promoters of positive SEL characteristics, "[Wild Earth staff] send a message that you can be cool and follow the rules, and be respectful, and be responsible, the way Wild Earth instructors are."

Finally, Wild Earth programming attracted special student populations — students with special needs and ELL students in particular. One teacher of students with special needs explained that Wild Earth activities and instructors engage her students in a way that promotes friendships and positive peer connections. A teacher of ELL students explained that Wild Earth activities, particularly as they are craft- and play-based, create opportunities for ELL students to connect with English-speaking peers. Wild Earth provides supportive, welcoming, and productive programming for these important student populations.

### V. Conclusion

The 2022-23 school year was the sixth year of partnership between Wild Earth and the Kingston City School District. The nature of that partnership has evolved over time, expanding through the middle schools, and into several elementary schools and the high school. Despite interruption from COVID-19, Wild Earth continues to be a mainstay in the KCSD. It is integral to SEL programming in participating schools and is featured as an important community partner in KCSD's district wide safety plan.

Data show fewer disciplinary referrals on guided recess days for fifth and sixth grade, which suggests that Wild Earth's programming on those days may contribute to overall better climate and behavior on the playground. Likewise, 25 percent of fifth and sixth graders are reached through Wild Earth's after-school programming. Observations of program and interviews with school and Wild Earth staff revealed student growth and engagement in SEL concepts areas through Wild Earth programming.

The year was not without its challenges, however. Wild Earth staff stated that they would have liked to have had more, and more consistent, student participation in the after-school program. School administrators noted that there are many after-school offerings, of which Wild Earth is just one. Students often choose different experiences on different days or are required to stay with teachers for academic help. Wild staff attributed lack of older students' participation, at least partially, to the COVID-19 pandemic, which interrupted the continuity of their programming and meant that students in upper grades (grades 7 & 8), had limited exposure to Wild Earth prior to the 2022-23 school year. Wild Earth and school staff considered that there may be different ways to reach these older students, such as having them be mentors to younger students during after-school programming or even during recess, if their schedule allows. This may be something for Wild Earth to pursue.

Some teachers expressed feeling disconnected to Wild Earth and wished for a tighter link to the program. One teacher indicated an interest in connecting her curriculum to Wild Earth's themes to create continuity for her students and to encourage their participation in Wild Earth. This teacher suggested that Wild Earth send a monthly newsletter to inform teachers of its curricular themes. Another teacher stated that she would like to have Wild Earth staff work with her class on SEL-oriented lessons and projects. These suggestions may present an opportunity for Wild Earth to extend its reach and impact through work and connections inside classrooms - even if just a few to start. It is possible that this Wild Earth-classroom connection, starting on a small scale, could provide a model for other teachers to deepen engagement with Wild Earth.

Looking to the future, administrators of both middle schools stated that they are eager to continue working with Wild Earth. It is a partnership that they value and trust. Wild Earth is clearly an asset to these schools and the Kingston City School District as a whole.



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