

THE ECOS PROGRAM OF GREEN WORKS IN KANSAS CITY
EVALUATION OF RESEARCH,
BEST PRACTICES, AND OUTCOMES
FOR UNDERSERVED CHILDREN IN JACKSON COUNTY, MISSOURI

EXECUTIVE SUMMARY

The purpose of this evaluation is to document the outcomes of the ECOS program of Green Works in Kansas City (GWKC) targeting elementary and middle-school students in 2019, within the boundaries of School District of Kansas City (Jackson County, Missouri), who are underserved by outdoor programming.

The ECOS program includes learning experiences such as field trips to urban parks, hikes, bird watching, identification of native trees and plants, water quality testing, and solid waste and recycling projects. Embedded within these experiences are literacy, math, science and social-emotional development skills, concepts and applications.

This evaluation addresses how effectively ECOS was implemented at the Anita B. Gorham Discovery Center in Fall 2019, to meet the following goals:

- 1. Improve health benefits, social-emotional learning, and wellbeing of participants through alignment and contact with nature in their community.**
- 2. Promote best practices.**
- 3. Personalize informal science learning.**
- 4. Improve equitable access for underserved youth.**
- 5. Support and enhance the goals and outcomes of partnering agencies.**

A review of the literature found that we are in an environmental crisis related to both public health overall and specifically the physical health, emotional development and wellbeing of children.

Research demonstrates that environmental settings and learning environments, as well as specific educational goals and experiences related to environmental knowledge, are essential to children's physical health, mental development and emotional wellbeing.

In addition, green learning experiences and the related social environment outdoors are conducive to higher learning outcomes and positive attitudes toward learning and enhanced social relations between and among teachers and peers.

These experiences, as well as access to informal science experiences that stimulate science-based interest and curiosity, are found to be especially important for marginalized and underserved populations.

This evaluation found that the ECOS Program meets national standards for both formal and informal science and also reinforces and enhances learning correlated to upper elementary Missouri State Science Standards. The program additionally demonstrates essential best practices in pedagogy, with a specific focus on qualities of hands-on, experiential education.

From an analysis of the Jackson County zip codes served by GWKC, the ECOS program reaches families in neighborhoods with greater than average health and learning needs, quality child supervision priorities and workforce preparation issues, which correlates with poverty, racial housing segregation, and unemployment.

Outcomes from assessments with both students and parents documented the need for outdoor programming for this target population due to limited outdoor time in their normal schedules and less-than-optimal use of green spaces within their neighborhoods.

There were high positive attitudes about program outcomes (over 4.3 out of a 5-point scale), as well as strong interest in continued student participation in the future. Partners also rated their relationship as excellent (4.5).

This evaluation of ECOS draws the following conclusions from the research and program assessment data about its best practices and outcomes:

- 1. High quality programming:** The ECOS program implemented by GWKC provides an exceptionally high-quality program for outdoor health and science learning.
- 2. Professional management and facilitation:** ECOS is managed by well-educated science-trained professionals and provides access to science practitioners as speakers and mentors.
- 3. Important regional programming:** ECOS is an important program in the Kansas City region for promoting and modeling best practices in informal environmental science.
- 4. Standards-based:** ECOS aligns with Missouri State Science Standards across numerous life and environmental science goals and priorities.
- 5. ECOS builds upon interests and needs:** The ECOS experience builds upon participants' interests and enjoyment of nature, and meets the high level standards of parents and partners for quality education, support of their children's interests, and advancement of healthy behaviors.
- 6. ECOS targets children at critical stages:** ECOS reaches children at a young age that is a window for developing motivation to engage in science and the natural world.
- 7. ECOS enhances partners:** ECOS enhances and multiplies the strengths and outcomes of partnering agencies.
- 8. Barriers are still pronounced:** There is still an alarming level of barriers to underserved families and children in Jackson County, Missouri to fully participate in healthy outdoor experiences and green spaces.
- 9. Green spaces not being optimally accessed:** Programs like ECOS are essential partners for continuously maximizing parks and green spaces in Jackson County.
- 10. Evidence is overwhelming:** The overwhelming documentation shows that children (as well as adults) are in exceptional need to be out-of-doors for physical, mental, and emotional health, and to advance the predispositions needed cognitively for optimal learning and resiliency. This has never been truer in all of human history.