



YOUTH ENVIRONMENTAL ENGAGEMENT TOOLKIT

• COMPILED BY
• LAKEISHA RILEY, BAYLEE BALOGH, AND
THE LOCAL CLIMATE ACTION PLAN PARTNERS





Placing youth at the center of environmental advocacy is crucial for a number of reasons. First, children are among the greatest affected by the climate crisis. According to the Environmental Protection Agency (n.d.), in addition to the impacts to their physical bodies and developmental health, negative climate impacts, like poor air quality and heat exposure, may cause upper respiratory and gastrointestinal issues through the consumption of contaminants in the water. Another threat to children as a result of climate change is access to healthy food. “Extreme events, such as wildfires, floods, heat waves, and droughts, may disrupt food distribution, increase costs, and limit availability” (Climate Change and Children’s Health | US EPA, 2025).



Creating programs that not only address the issues specific to children’s needs but also engage them in the solutions help them understand the importance of the environment and shapes future behaviors. It also equips them the tools they need to live a more sustainable lifestyle as they grow and creates a sense of belonging in the world and a care for their fellow citizens.

This toolkit, though not all inclusive, is intended to provide suggestions on youth engagement activities, as well as examples of success by other communities and/or scholarly studies supporting their implementation. These tools comply with Pennsylvania’s Science, Technology and Engineering, and Environmental Literacy and Sustainability Academics (STEELS) Standards which “incorporates essential principles of environmental education organized under the following three core ideas: 1) Agricultural and Environmental Systems and Resources; 2) Environmental Literacy Skills; and 3) Sustainability and Stewardship” (Department of Education | Commonwealth of Pennsylvania, n.d.). For the sake of this reading, we will focus specifically on Sustainability and Stewardship.

For more information:

- <https://www.pdesas.org/Page/Viewer/ViewPage/58/>



Youth Engagement Ideas

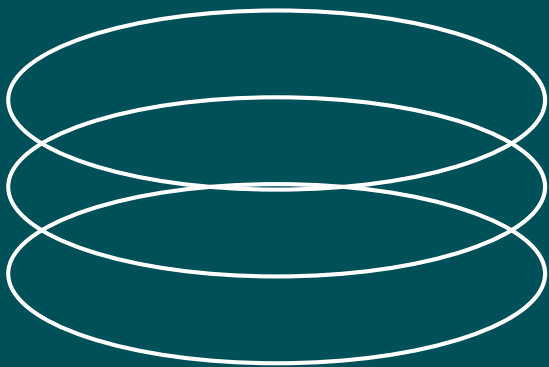




Image Credit: Euporium

CUSP KITS

Climate and Urban Systems Partnership kits (CUSP), which inspired this booklet, refer to resource tools to promote climate related learning for both youth and their adult counterparts. These kits include, but are not limited to, hands-on interactive games, community facilitated workshops, and partnerships with external organizations with the goal of fostering a sense of collective action, climate education, mitigation, and adaptation.

Through its university library and the Center for Sustainability, Penn State University has several CUSP kits available for checkout. These kits are intended to be duplicated and provide participants hands-on guides and experiments that explore the links between different environmental factors from transportation and traffic flow to how tree sustainability can assist in mitigating warmer weather.

For more information:

- <https://greenphl.com/philly/cusp-climate-urban-systems-partnership/amp/>
- <https://libraries.psu.edu/>



INTERACTIVE GAMES

Unsurprisingly, youth engagement activities that couple education with fun have a greater impact of not only being successful but also cultivating sustainable habits in youth long-term. UNICEF (n.d.) concurs that “[h]ands-on activities, creative mediums, field visits and interactive discussions are more effective and can be replicated and incorporated into such programmes for youth engagement” (p. 22).

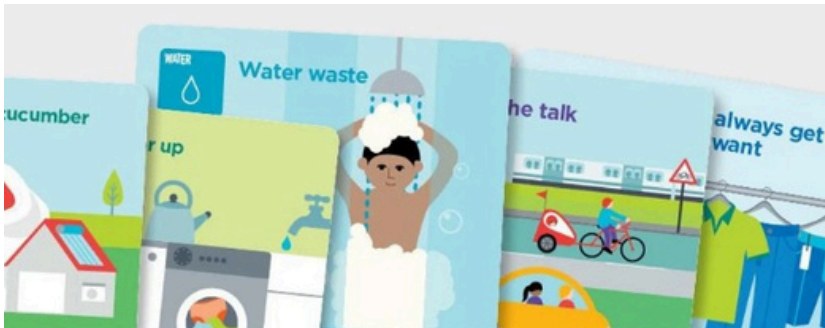


Image Credit: EcoActionGames via Etsy

These games make the complexity of climate related issues engaging which may provide the motivation for change both now and in the future.

Interactive games, such as the one picture (available through EcoActionGames), strengthen youth understanding of climate related issues through problem solving and practical application of mitigation strategies.

For more information:

- <https://www.etsy.com/listing/1331344802/climate-emergency-action-card-game>



Grow and Test your Green Knowledge

Are you a Green Genius? A Green Amateur? Somewhere in between? Assess your awareness on topics ranging from energy, water, food, waste, buildings, materials, and transportation systems.

PLAY NOW »



Sort the Trash on Earth

Explore some of the common challenges we are facing on Earth and learn more about recycling in this student-developed game. Is it a quick refresher for you or brand-new information? Test your skills and find out.

PLAY NOW »

The University of Michigan School for Environmental and Sustainability has a variety of online games with the premise of engaging youth to explore and create various sustainable solutions. These games, developed by one of the program's graduate students, range in scope from recycling and ways to reduce one's carbon footprint to discovering how biofuel can be used in aviation. There are notable conclusions from engaging youth through interactive games. Galeote et al. (2023) cite that "the advantages of gamification include, first allowing players to explore problems and solutions actively, adapting to their performance... and motivating cognitive and behavioral change through both intrinsic and extrinsic mechanisms" (para. 12).

These games make the complexity of climate related issues more engaging which may, in turn, provide the motivation for change both now and in the future.

For more information:

- <https://seas.umich.edu/admissions/games>



Image Credit: Golden Care Therapy

Urban gardens educate children about nature and their importance in the climate equation.

URBAN GARDENS

Urban gardens offer children the opportunity to connect with nature by using all five senses while simultaneously growing and providing food, promoting sustainability, and creating a sense of community. As local and global temperatures change due to climate related issues, the threat to food security becomes even more prevalent particularly in underserved communities. Urban gardens educate children about nature, plants, and their importance in the climate equation, by allowing them to cultivate healthy food for themselves and other community members while also working to combat food insecurity and food deserts.

For more information:

- <https://kidsgardening.org/resources/garden-activities-designing-a-sensory-garden/>
- <https://kidsgardening.org/resources/digging-deeper-urban-gardening/>



There are positive outcomes for teachers, as well. According to Corrochano et al. (2022), climate change educators not only prefer outdoor learning experiences, but note that “outdoor experiences can result in action and significant changes towards sustainable practices and pro-environmental behavior” (p. 11). The change in scenery also allows teachers to dynamically connect with students in ways that not only promote engagement throughout the academic school year but extends to after school activities (i.e. 4-H Garden clubs) and long-term leadership and activism activities.

Youth possess the unique advantage of both collecting knowledge and using innovation to create meaningful change centered around environmental justice. It is well understood that access, or lack thereof, to quality food makes it difficult to focus on anything else, much less climate change. Youth engagement through urban gardens may allow them to bridge the gap between food sovereignty and building a sustainable future. Teachers are in a unique position to facilitate this behavior and learning through promoting sustainable values, providing useful strategic environmental tools, and cultivating wonder.

For more information:

- <https://www.mdpi.com/2227-7102/12/4/275>

EDUCATIONAL PROGRAMMING



Educational programming, such as those created by Pennsylvania based Livia Beasley from Pixel and Pebble, produces context for children surrounding a variety of prosocial concerns including environmental advocacy. Programs, such as God's Greenhouse which Beasley produced for client Minno, combine environmental knowledge and protection with faith-based lessons. In an age where screentime is being limited, the benefits of these programs are that they expose children to science and health based content while also discussing how these issues connect us with others. The end result may help children cultivate a sense of community and how to tailor their behaviors, particularly their interactions with the environment, in a way that considers how their action or inaction affect others. "From a theoretical perspective...those [children] who felt more transported by a video narrative were likely to have higher levels of knowledge. This may mean that they learned more from the show and were more primed for action" (Kennedy et al., 2011, para. 441).

For more information:

- <https://www.pixelandpebble.com/>



Successful administration of climate-centric youth engagement programs requires carefully blending knowledge of environmental issues with fun. Though the primary focus of this toolkit is centered around activities best suited for grades K-5, it can be scaled to include upper grade levels. For example, creation of urban gardens can be scaled up to include a business component that allows teens to sell the items they grow or it can include the adoption and upkeep of a community park. Regardless of the manner in which the programs are implemented, in order to make them meaningful, youth need to understand that they play a critical role in climate advocacy through creativity, influence and future behaviors. The role of teachers is also crucial as they are most often at the center of many intersectional issues facing their students. It is important lessons in a way that influences students' learning experiences and the well-being of both them and their communities. These suggested engagement activities are meant to provide a headstart in perhaps one of the most important lessons they will ever teach.

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