

Gardening with Kids

As a non-profit organization, Appalachian Sustainable Development works to build better, stronger, resilient communities and bring families closer together in Central Appalachia. We know that agriculture can do this. Working and eating from the garden has numerous benefits for both you and your child(ren), including bonding time in a failure-free, safe, experimental environment. Gardening is a great opportunity for families to work together toward a common goal: providing food for the dinner table. Plus, fruit and vegetables grown in the backyard are jam-packed with nutrients - more than the ones you buy at the grocery store! Even if you have no experience growing food, it can be a rewarding, affirmative, collaborative experience for all involved. If you have questions about how to get started gardening, programs we offer to help get tools, seeds, and supplies, or just want to know more about the benefits of gardening, reach out to Morgan Bradley.

Appalachian Sustainable Development

Our goals are to: introduce agriculture as a viable career option; help children grow their own food; teach them science, math, art, ecology, biology; introduce activities and concepts that help them draw connections among topics, now and into the future; enforce good environmental stewardship; and create a fun learning environment for children of all ages. Providing a space where children can learn not only how to grow food crops, but also what goes into the growth, how to plan, and how to work together introduces agriculture as a viable career option. We see ourselves as not only growing with kids, but growing kids as future farmers and providers for their families and communities. Hands-on experience helps encourage them to think of growing food as a future opportunity.

It is important for children to learn where their food comes from and to be provided with opportunities to explore healthy, nutritious, fresh foods. Kids are encouraged to try the food they grow right there in the garden. Teaching children about the nutrient cycle and how different foods impact their bodies reinforces their understanding of healthy eating choices and develops a sense of food as energy, health, care, identity, and a shared experience.

Gardening provides numerous opportunities to explore topics including science, technology, engineering, art, and math. We implement garden lessons so students get hands-on, applied experience in the subjects. For example, a child can look at a paper and calculate the area of a rectangle, but if they are calculating the area of a rectangular garden bed to figure out how many kale plants can fit, they understand the real world application of the math problem and reap the rewards of their work as the plants grow healthy and happy, and especially when it comes time to harvest. Not only does gardening provide enhanced educational opportunities, but this type of teaching lends itself to critical thinking skill development, enhancing children's abilities to draw logical conclusions and connections among complex topics. Critical thinking skills are a vital aspect of growth and education and will persist through the child's life.

Agriculture

Agriculture cannot be separated from the environment. Crop growth depends on climate, weather events, water and nutrient availability, pest presence, and much more. Garden success depends on our understanding of these concepts and gives children an opportunity to make connections between food and larger systems in the world. Further, we provide education on natural gardening only; we do not use any chemicals or unnatural fertilizers, and that is made clear to the participating children. They learn about the negative effects of pesticides and poor land management and why being good environmental stewards is important.

Finally, family gardening is *fun*. The best way for children to learn is to have fun while they do it. The children in gardening programs are given options based on their interests in the garden and develop lasting relationships with the ASD's garden facilitator, volunteers, their own families, and peers. Kids are exposed to a landscape in which working together is a necessity to achieve a common goal. Social skills, negotiating workloads, and being provided with choices all contribute to the enjoyment of garden time. Kids look forward to garden time and rather than weighing them down with monotonous tasks, their freedom to follow their own curiosity about the garden allows for growth, passion, and compassion to flourish.

Benefits of Gardening

The benefits of gardening encompass lifelong mental, physical, social, emotional, and spiritual health. Community gardening has been found to increase resilience and feelings of well-being and decrease levels of stress (Koay, W., & Dillon, D., 2020). Simply touching soil can increase serotonin levels in the brain, the natural, "feel good" neurochemical. This is due to contact with a specific soil bacteria. Gardening promotes mindfulness, physical activity, feelings of connectedness, improved mental health, focus, interpersonal relationships, and environmental stewardship.

In recent years, focus has been placed on early childhood intervention methods to improve lifelong well-being. Exposure to good nutrition as a child helps the body to develop healthy immune response systems, brain development, and gut microbiome (Skelton, K. R., Lowe, C., Zaltz, D. A., & Benjamin-Neelon, S. E., 2020). Gardening introduces nutritious foods, physical activity, complex topics, and a place for socioemotional development. Additionally, it has been found that school-aged children exhibit better attention on tests, better stress recovery, and as a group have "fewer instances of interpersonal conflict" when they are exposed to greenspace and gardening (AgriLife, 2022). Because these improvements happen at a critical time in childhood development, the positive effects can last a lifetime. Benefits include: anxiety and stress reduction; attention deficit recovery; decreased depression; enhanced memory retention; improved happiness and life satisfaction; mitigation of PTSD; increased creativity, productivity, and attention; and enhanced self-esteem (AgriLife, 2022).

Children who garden get the added benefit of feeling pride and ownership when they are involved in gardening efforts. From planting a tiny seed to watering and weeding to harvesting the fruits of their labor, children gain a sense of accomplishment. They not only learn about plants, but develop their sense of self, faith in their abilities, citizenship, and personal responsibility.

Finally, “experimental learning and education have shown positive health outcomes for young children,” (Skelton, et. al., 2020). Utilizing STEAM education and gardening embodies experiential learning. It gives children the opportunity to apply what they have learned to a real-world setting in addition to reaping the benefits listed above.

For more information, contact Morgan Bradley at mbradley@asdevelop.org.