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Developing the Exceptional Teacher

Raising a Barn: Creating an Agricultural Exhibit in an Urban Children's Museum

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Baltimore is filled with historic sites, museums, a world-class symphony orchestra, and family-friendly activities. However, in 2015, the Johns Hopkins Center for a Livable Future in collaboration with the Baltimore Food Policy Initiative found that one in four city residents lives over a quarter mile away from a grocery store. Like all cities, there are pockets of high-crime and impoverished neighborhoods; 32.2% of Baltimore children live in poverty. Since many city residents don't have cars and public transportation is limited, access to healthy foods is complicated. Although Baltimore City children are gaining better access to farm products via mobile food trucks and pop-up farmer's markets, many are unfamiliar with farms and agriculture. Hence, Port Discovery Children's Museum partnered with the agriculture community to develop *Here We Grow!* – an exhibit designed to engage children and families in hands-on learning about agriculture.

Port Discovery strives to address the community's educational needs. Our "Healthy Families, Healthy Communities Initiative" connects children and their families with education, resources, and opportunities that support healthy living. Because we are in the heart of an urban area, we decided to offer an exhibit about agriculture because it dovetails nicely with the Museum's healthy living messaging.

Until recently, Port Discovery had a small, heavily-trafficked farm and harvest exhibit. Down on the Farm simulated the outdoor world as children harvested vegetables, operated a silo, groomed a horse's tail,

March-April 2017

and milked a cow. The exhibit's popularity demonstrated visitors' interest in animals and agriculture related activities. When we approached local agriculture-affiliated groups about refurbishing and expanding this exhibit, they were excited to help educate our visitors about farming.

Due to technological changes, the traditional farmer's role has expanded. Maryland farmers wanted children to experience the diversity of agricultural jobs, countering the myth that farmers simply wear overalls and ride on tractors. Therefore, the scope of *Here We Grow!* was expanded well beyond that of our former farm and harvest exhibit. It was designed to introduce children to the role of agriculture in their lives, relating it to what they use, play with, eat, and wear. Visitors would learn about farming in Maryland, farm foods and animals, and how farm products journey from fields to homes.

Going to the Source: Meeting our Constituents

We collaborated with an active agricultural network involving the Maryland Agricultural Education Foundation, Maryland Grain Producers Utilization Board, Maryland Egg Council, Mid-Atlantic Dairy Association, Maryland Dairy Industry Association, Maryland Soybean Association, and the Baltimore County Center for Maryland Agriculture. This collaboration enabled pooled resources while helping to forward these organizations' institutional missions. Thus, an Agriculture Advisory Committee was established with representatives from these groups, as well as Baltimore City Health Department, University of Maryland Extension, Baltimore County Public Schools, Baltimore City Public Schools, and the Wright Family Foundation.

We applied for and received Institute of Museum and Library Services funding to maximize what had been received by other generous donors and create an all-new, significantly more robust, educational agriculture exhibit.

The Process

A Museum Education Advisory Council was convened. The Council adopted a community-needs perspective to create a relevant and developmentally-appropriate exhibit for children and families.

The Museum's Health Advisory Council advocated for the exhibit's relevance from a public health standpoint. This advocacy resulted in a partnership with the University of Maryland, School of Medicine, to form an after-school enrichment program on health topics like nutrition and exercise, giving students opportunities to meet healthcare professionals and learn the value of eating healthy foods. The Agriculture Advisory Committee continued providing insider knowledge on the workings of agriculture in Maryland, supplying educational content and partners. One partner sent three Port Discovery staff members to the "Agriculture in the Classroom" conference.

The Maryland Book Bank provided books for the exhibit's reading area, and The National Federation for the Blind made accessibility recommendations. Port Discovery staff were trained in evaluation techniques by Smithsonian Center for Learning and Digital Access personnel. Training aided efforts in 1) establishing targeted outcomes for the exhibit; 2) defining our approaches to formative evaluation emphasizing messaging and educational value; and 3) strategizing summative evaluation.

Growing Success: Prototyping

While planning, potential exhibit pieces were categorized for age-appropriateness, relevant Common Core Standards, Next Generation Science Standards, Maryland Model of School Readiness indicators, Bright Beginnings indicators, 21st century skills, and appropriate universal design categories. Once all plans were vetted, the Museum's Exhibits Department designed prototypes that were tested by visitors. Both the Exhibits and Education Department staff observed these interactions and analyzed them, developing recommendations for improvements and final designs. Some farmers and stakeholders were also invited to participate; they made valuable suggestions for improvements to signage and descriptions of agricultural processes.

Bringing the Project to Fruition

Five firms were given the opportunity to bid on exhibit fabrication. Heartland Scenic Studios submitted shop drawings and developed construction details for the bid. Heartland was awarded the project.

Programming the Exhibit

Here We Grow! helps visitors see the interconnectedness of agriculture with everyday life as they experiment with replicating real-world settings. Lesson plans on three developmental levels include pre- and post-visit activities, a teacher observation sheet to document children's interests to further explore in the classroom, exhibit descriptions, and book lists. To promote and enrich the exhibit, "Down on the Farm Days" incorporate special guests, such as live farm animals, an urban farmer, composters, Bee Keepers Association of Maryland, and 4-H groups.

The Power of Partners

As the project grew, so did our network of partners. They have been valuable resources who have left

their marks on the exhibit. A Maryland Agricultural Education Foundation committee member reviewed the lesson guides and donated dolls modeling agriculture-related activities, which are also incorporated into the exhibit.

And the network continues to grow. Launching the exhibit has introduced us to local heroes, such as Ulysses Archie from the Baltimore Gift Economy. Ulysses visits the Museum to tell Port Discovery visitors about his urban farms that gift locally farmed food to Baltimore City residents who in turn pass the gift on by sharing their time, skills, or other resources with others. Here We Grow! honors the agricultural history of Baltimore while supporting children's classroom learning across several curriculum subjects, offering opportunities for intergenerational learning, and sharing knowledge that builds healthy communities.

The Five Exhibit Areas

In Agriculture through History, visitors "meet" a variety of Maryland farmers, an equine veterinarian, and a member of the Garret County Farm Quilt Association.

Agriculture through Local Ecology introduces the effects of weather on crop growth, spotlighting the Chesapeake Bay, farmer's markets, and a map of fresh food markets in Baltimore City.

Agriculture through Science and Technology demonstrates the effect of technology on production in the egg and dairy industries, and animal healthcare in veterinarians' offices.

Agriculture Perceived through Art explores cultural celebrations influenced by agrarian cultures of the past and present through music, art, and dance.

Agriculture through Global Economy highlights Maryland's

global import and export system of meat, wheat, soybean, and corn.

Conclusion: Time for the Harvest

Here We Grow! started with the seed of an idea. With our agricultural partners' contributions, we were able to fertilize the idea and help it grow. As a result of developing this exhibit, we have strengthened our role as a community resource and fostered a partnership with Maryland's agricultural network. We learned new ways to address the needs of our community's children and families. We furthered our role as educators and disseminators, affirming Port Discovery as a community hub that brings individuals and organizations together. Most importantly, we learned that working with unlikely partners creates magnificent results.

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