

Advancing an Early Childhood Agenda



Report date: September 2019

Four years ago, Kentucky Science Center opened *Science in Play*, an exhibit at the nexus of an initiative that also included advocacy, program, caregiver supports, and community engagement strategies. Quickly and consistently *Science in Play* solidified the Science Centers place in today's early childhood education landscape locally, regionally, and nationally. Its progressive approach helped define and deliver a best practice for educating our community's youngest minds, with nearly one million visits since opening.



science in play[®]

powered by  PNC  Grow Up Great[®]

22%

Increase in member households

43%

New members who joined because of *Science in Play*

22%

New members who report visiting 7 or more times in the last year

Science in Play, powered by PNC Grow Up Great, is a large-scale hive of loose-part, play-based experiences designed to strengthen children's 21st Century skills and support parent/caregiver's abilities to take advantage of everyday learning moments at home. Its progressive, next-generation atmosphere and approach sets children up as capable, competent learners within a real-world environment and is especially in tune with empowering adults too.

Science in Play has significantly influenced visitor and member behaviors and has contributed to changing business dynamics. Since *Science in Play* opened, KSC saw 22% growth of member households. 43% of new members surveyed say *Science in Play* is the reason they joined. 53% of them have children under 2, meaning we are attracting families even earlier than ever before. And they stay members longer too. 54% of members surveyed say they joined at least four years ago. *Science in Play* also enjoys a strong reputation, with 98% of those surveyed saying they would recommend the experience to other parents/caregivers.

In celebration of *Science in Play*'s fourth birthday, a retired UPS delivery vehicle found its new home at KSC in July 2019. This full-scale truck complements the Shapes & Stuff Store and Build Your World areas and further reinforces that learning is everywhere, even driving down the street delivering packages. *Science in Play* strengthens the everyday learning skills of both children and adults.

96% of adults say that engagement in *Science in Play* improves their child's ability to be successful in school.

And, 60% of adults report taking inspiration from *Science in Play* activities and translating them to the home.

Half of Kentucky's young children are ready for kindergarten. That gap in readiness points to one reason this work is essential.

And what about the half who aren't ready? Only half of those are enrolled in formal early-learning programs. This means the work of *Science in Play* can have double the impact: promoting readiness for all children, and shoring up skills for children and caregivers who lack other supports. 24% of members surveyed DO NOT have their young children in an organized care setting,

so *Science in Play* offers important exposure to opportunities for gross motor, executive functioning, cognitive and character skill development.

Science in Play has inspired two smaller versions of the experience in partnership with Kentucky Department for Libraries & Archives. This library/science center partnership – that manifests as *Science in Play2Go* – moves beyond traditional outreach, episodic program or even concentrated enrichment series. Nestled completely within the infrastructure and operation of each library, *Science in Play2Go* is a fully free, interactive and dynamic science center experience complete with loose parts and constant squeals of delight and enthusiasm. Intentionally embedded within the “collections” (a.k.a. book stacks) and adjacent classroom spaces of each library, this experience is meant to transform the way library staff interact with visiting families and influence the way those families see and experience their local library.

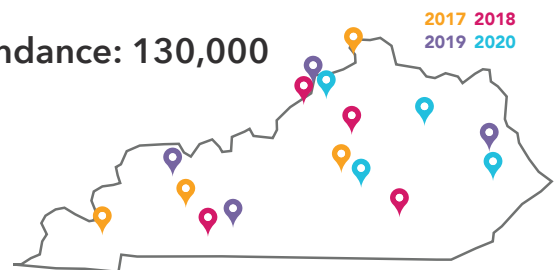


At all sites, library staff complete a self-assessment both before and after hosting *Science in Play2Go*. Consistently staff express gains in ‘thinking of new things to expose patrons to science learning. Other intentional, but unique impacts include:

- ⚙️ Gains in the depth of connection between a library and its community
- ⚙️ Gains in the length of stay for families and in reaching new families
- ⚙️ Shift of staff habits from quiet comfort zone to more-engaged learning
- ⚙️ Shift to more parent-child interactions (less adults zoning out on their phones)
- ⚙️ Increased children’s book circulation and gains in the number of library cards issued

Science in Play2Go has served nearly 130,000 visitors in 11 libraries since opening in 2016 and a smaller-scale version was recently funded through the Institute of Museum and Library Services and will open in January 2020. *Science in Play2Go* visits communities across the Commonwealth where Kindergarten readiness statistics lag most prominently.

Total Attendance: 130,000
(as of July, 2019)



Change is inevitable, and KSC has learned a lot since first launching *Science in Play*. With the need to revisit some elements of the design for an even smaller exhibit, there was the chance to also implement some desired changes to the “parent tips” which complement the experience. Research from Jeanne Vergeront helped identify a disconnect between the words being used and adult’s understanding of those words. The newly designed signs now use more familiar words help connect the dots between the things they might see their child doing, the ways they can encourage their child, and why that is important to being “school ready”. Using the new *Science in Play2Go* as a testing ground, if adults respond well, the “parent tips” in the flagship exhibit may also be updated to follow this model. One thing *Science in Play* has always been is ground for continual experimentation and improvement.

Trying & Figuring Out

How do you know your child is **planning, predicting, testing, & problem solving?**

Watch for: guessing, observing, persisting, predicting, puzzling, trial and error, applying knowledge, thinking critically, having new ideas, building on ideas, recreating an effect, being intentional.

Chat with your child.

- “What are you planning to do?”
- “What have you discovered?”
- “Why did your plan work?”
- “Can you guess what will happen?”

School ready! Making a plan, guessing how it will work, and testing and making changes are all things that build problem solving and critical thinking skills, plus resilience and persistence, too.

Talking About It

Do you recognize when your child **explains their thinking & what they’ve learned?**

Watch for: describing, explaining, summarizing, thinking, telling stories, using new words, retelling in their own words, asking for help.

Chat with your child.

- “What did you discover?”
- “Can you tell me a story about it?”
- “What made you think of that?”
- “Let’s try it again. Will you do anything differently?”

School ready! As your child becomes more articulate, having conversations about their activities helps them learn how to organize their thoughts and put thoughts into words. Describing and explaining builds vocabulary and social skills, and fuels passion and interest.

Observing

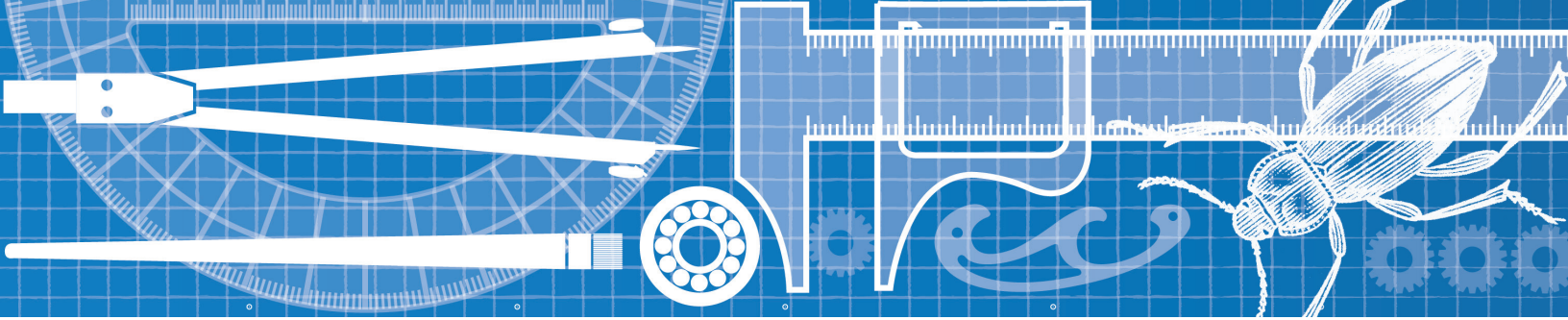
What does it look like when your child is **listening & collecting information?**

Watch for: listening, looking, watching, touching, pointing, linking actions and effects, finding clues, mimicking, focusing, seeing patterns, concentration.

Chat with your child.

- “Let’s look closely.”
- “What just happened?”
- “Can we find some similarities?”
- “Can you tell me about that?”

School ready! Noticing details about people, places, and things helps your child focus, concentrate, and stay balanced and in the present moment. These self-management and observation skills are part of a learner’s resilience and life-skills toolkit.



COMMUNITY EQUITY

Since opening *Science in Play*, 6,749 children ages 0-4 have attended free playdates. Significantly from low to moderate income families based on zip code data provided at registration, PlayDates are protected time in the exhibit gallery either before opening or after hours, and often include caregiver tip time and partner programming to enhance the experience. Corporate sponsors Norton Healthcare and recently GE Appliances have underwritten this effort over the years.

More than 500 local Family Scholar House families, many single parents with young children, are offered complementary Science Center memberships annually. This is part of the *Science in Play* commitment to empower caregivers and ignite lifelong learning habits in children right from the start.

Kentucky Science Center was selected by its peers to champion a three-year project involving six core collaborators to establish a local road-map of events, activities and resources for families of children specifically ages 0-5 and their adult caregivers and other family members. My Big Little Adventure is now an established entity (mybiglittleadventure.org) with more than 1500 enrolled adults and beginning to grow its web of community connectors and program partners. MBLA will be showcased at the upcoming National Centers for Families Learning conference.

