

Anywhere STEM Exploration: Supporting STEM Learning in Formal and Informal Settings with *PEEP and the Big Wide World*

Background

Intended for children ages 3–5, *PEEP* is one of the first media projects to feature a science curriculum targeted to preschoolers, and to promote that curriculum across television, books, the Web, preschool classrooms, and library and museum events. The series is narrated by comedienne Joan Cusack and its theme song is performed by blues legend Taj Mahal. *PEEP* premiered in April 2004 and garnered immediate praise from the media—*TV Guide* lauded the series three times in the first year. E-mails from parents and teachers have been equally enthusiastic: “A home run! There is so much mindless garbage on TV aimed at children... *PEEP* is a rare diamond,” and “It’s one of the best examples I’ve seen of education combined with entertainment.”

PEEP features a chicken, named Peep, a robin (Chirp), and an irascible, endearing duck (Quack), as well as an extended family of friends and (occasional) foes. The show takes place in and around a large urban park—a place of great wonder and mystery, and a place Peep, Quack, and Chirp are forever eager to explore. Airing in both English (on public television) and Spanish (on VMe), each televised half-hour contains two animated stories that highlight specific science or math concepts and two live-action films that show real kids playing and experimenting with those concepts. These segments not only give kids great ideas—like building towers out of shapes or making parachutes for toys—but also show the adults in their lives that play, science, and math are complementary activities that can be done anywhere, anytime...in the kitchen, in the bathtub, on the porch, and in the backyard.

PEEP’s animated stories, interactive games, and activities have reached many children, families, and educators. Every month, an estimated 800,000 viewers—including new and returning—tune in to the television broadcast. Last year, the *PEEP* website had more than 3.1 million visits from all over the country. More than half a million Head Start and preschool teachers have been introduced to *PEEP*’s science and math investigations via the *PEEP* website and through conference presentations and trainings.

Documented Results

WGBH developed and preliminarily evaluated the impact of the existing collection of *PEEP* resources. Independent evaluators have found that when presented with materials to manipulate and freely explore, children who were exposed to *PEEP* television episodes interacted with these materials in ways that were more grounded in science process skills than children who were not exposed to them (Goodman Research Group, 2005, 2011). Children who watched *PEEP* episodes were more likely to pose questions (71% vs. 22%), initiate predictions (33% vs. 7%), and use problem-solving strategies (76% vs. 34%). In addition, children who watched *PEEP* episodes made more observations than children who did not (47% vs. 16%). Independent evaluators also found, through surveys, that *PEEP* resources showed promise for supporting preschool teachers’ science practices. Teachers reported that, after using the Explorer’s Guide (which provides teachers with guidance for implementing the activities that can be accessed via the *PEEP* website), they felt more confident leading science activities and creating an

instructional environment supportive of science. Teachers also reported that they found it easier to lead their students in hands-on activities, ask open-ended questions, and encourage children to share their ideas—all key science practices.

Potential Applications

Variations of the *PEEP* curriculum and other resources have been used successfully in a variety of formal and informal learning settings with both English- and Spanish-speaking populations of educators and parents.

For More Information

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PEEP website: <http://www.peepandthebigwideworld.com/>