

Family Science Learning

Our Family Science Learning research is funded by the Gordon and Betty Moore Foundation.

We are designing and researching activities that offer families opportunities to engage in fun, exploratory science learning together while out-and-about in their everyday lives. We are developing innovative ways that families can see, do, and think about science together.

How we think about science: Science is about active exploration, finding out more, thinking about and discussing evidence, and making sense of the world around us.

How we think about family science learning: Learning takes place when people are actively engaged with each other in conversations and explorations of the world around them. Real-world contexts have great power to drive learning. Families are children's first educators and they can instill a love of science learning.

Project goals

We are designing family learning activities that can be easily accessible to a wide audience. We aim to design experiences that empower parents to do and learn science practices with their children, and to elicit and extend children's curiosities. Building on the premise that science learning should be relevant and useful for the kinds of activities children do and the values that families have, we aim to develop experiences that intersect with families' everyday routines, interests, and values.

Our research

We are conducting short and long-term studies of family exploration and learning that happens in the course of everyday family activity, such as a trip to the market, a walk around the neighborhood, or playing at a park.

Questions we are asking:

We would like to know more about how to design for family science learning experiences.

- 1) How do families think about and do science practices together?
- 2) How can location-based mobile applications facilitate family science exploration and conversation?
- 3) How can location-based mobile applications help families 'see' that there is opportunity for science exploration all around them?

Methods

We work with families as partners and use a variety of methods in our research:

- 1) We video-record families in activity and do in-depth analysis of their conversation and interactions.
- 2) We structure ways that families can document their own learning. For example, creating photo galleries, stories about their activities, and videotaping themselves.
- 3) We interview parents and children about their activity.