

The Family Fun Guide

What is iQ: smartparent?

iQ: smartparent is an Emmy-winning multimedia television and web series designed for parents that will empower them with new knowledge, tools, and abilities to successfully guide their children through the changing landscape of digital media and technology. It's a growing community of caregivers, national experts, educators, and parent bloggers who want to understand the opportunities and challenges of media as it relates to the development of their children. *iQ: smartparent* was created by WQED Multimedia in 2012.

About this Episode

This episode of *iQ: smartparent* explores family fun activities with an educational twist. This episode presents at home activities parents can do with their children. These activities focus on STEAM skills: Science, Technology, Engineering, Art and Design, and Math. We'll also learn about Geocaching, a fun high tech outdoor scavenger hunt for the family, and what it can teach your children.

Discussion Questions

1. What are some fun educational activities you do with your family? Talk with your family about what kinds of fun educational things they would like to do. Would you be willing to try out Geocaching, or any of the other activities presented in this episode?
2. Brian Stamford says that parents should ask more questions and express fewer statements in order to encourage STEAM thinking. How often do you ask your children questions like, "Why does this happen?" "How can this work better?" "How can we improve the way it looks?" and "Can we measure what happened?"
3. Have you and your family visited a maker space in your community? What was the experience like? Did you feel that your child learned from the experience? If your community doesn't have a maker space, how could you, the school, and/or your local library go about creating one?
4. Why is it important to change STEM into STEAM, which now includes art?
5. When you think of art, is it just painting and crafts? What if you thought about art as design, creative process, planning, and communication? How does that change your perception of STEAM versus STEM?
6. What are some ways you can incorporate science in the kitchen, at the playground, while riding in the car, or at the supermarket?

About the Guests



Lora (Lo) Hutelmyer is currently the youth program manager at Venture Outdoors. Originally from Philadelphia, she graduated from Penn State and spent three years teaching middle school math and science in South Carolina and Texas. Lo is an alumnus of the Children & Nature Network's Natural Leaders program. She is also Wilderness First Aid certified and loves working with kids in the outdoors. Lo enjoys living in Pittsburgh, where she can garden, run, and kayak on the beautiful rivers!



Amber Rooke is the Education Coordinator for the Brashear Association, a community non-profit serving South Pittsburgh families for almost 100 years. The Brashear Association's Education Department operates the Allentown Learning and Engagement Center, which conducts after-school programming, summer camps and weekend programs. Amber has worked with youth in underserved areas for the last 14 years.



Brian Stamford is a Curriculum and Instruction Coordinator at the Allegheny Intermediate Unit (AIU), an organization providing specialized services to 42 suburban school districts in Allegheny County. Brian also serves as an Innovation Consultant with the AIU's Center for Creativity, which provides opportunities for educators to learn innovative instructional practices, and learn about new educational technology and STEAM concepts in a dynamic, hands-on environment. Prior to this, he worked in public education as a science and computer teacher, instructional coach, and administrator. Brian has a Master's degree in Science Education and a Bachelor's degree in Natural Sciences from the University of Pittsburgh.



Shawn Grimes has nearly 20 years of experience as a technologist in a variety of fields including mobile, cyber security, and software engineering. He is the Executive Director and Director of Technology at the Digital Harbor Foundation in Baltimore, where they use technology and maker skills to develop a blend of creativity and productivity in youth and educators.

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Online Resources

Design Squad Global

<http://pbskids.org/designsquad>

Tips for Encouraging Girls in STEM

www.pbs.org/parents/scigirls/stemsantional-resources/tips-for-encouraging-girls-in-stem/

Sid the Science Kid: Science Exploration Activities

<http://www.pbs.org/parents/sid/activities/>

Science Activities for Kids Babies to Second Grade in a Variety of Settings

www.pbs.org/parents/education/science/activities/

"Let's Find Out!" Three Tips for Raising Curious Kids

www.pbs.org/parents/expert-tips-advice/2016/03/lets-find-three-tips-raising-curious-kids/

Pancake Science

www.pbs.org/parents/adventures-in-learning/2014/03/pancake-science/

Electric Play Dough

www.pbs.org/parents/adventures-in-learning/2014/02/electric-play-dough/

Straw Rockets

How to: <http://ow.ly/MBSN305HPUK>

Template: www.jpl.nasa.gov/edu/pdfs/sodastrawrocket.pdf

Pendulum Painting

How to: www.smores.com/nr5t-pendulum-painting

Examples: <http://teachertombsblog.blogspot.com/2010/04/pendulum-painting.html>

Calder Mobiles

www.instructables.com/id/Simple-mobiles-illustrate-engineering-in-art/

Geocaching

Apps: www.commonsemmedia.org/app-reviews/geocaching

In the classroom: <http://geocachingforschools.weebly.com/>

Geocaching <https://www.geocaching.com/play>

Educaching <http://educaching.com/index.html>

Beginner's Guide to Geocaching

<http://clear.uconn.edu/geospatial/GPS/PDFs/A%20Beginners%20Guide%20to%20Geocaching.pdf>

One Smartphone. Two Kids. Tons of Fun.

www.commonsemmedia.org/blog/one-smartphone-two-kids-tons-of-fun

Tips for Exploring Science with Children

www.pbs.org/parents/education/science/tips/exploring-science/

Science Activities for Kids

www.pbs.org/parents/education/science/activities/

13 Cool STEM Books for Kids Who Love Science (and More)

www.common sense media.org/blog/13-cool-stem-books-for-kids-who-love-science-and-more

STEM to STEAM

<http://stemtosteam.org/>

STEAM: Experts Make Case for Adding Arts to STEM

www.edweek.org/ew/articles/2011/12/01/13steam_ep.h31.html

Turn STEM to STEAM: Why Science Needs the Arts

www.huffingtonpost.com/stephen-beal/turn-stem-to-steam_b_3424356.html

Kidsburgh

www.kidsburgh.org/

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