

# Math in the Digital Age

## 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* discusses how math is getting upgraded and transformed. Find out tips for homework help, how parents can encourage math learning and skills, and suggestions for family math activities for the 21<sup>st</sup> century. We will also discuss the controversial Common Core and what you should know about it.

## Discussion Questions

1. When you think of math or math class, what do you think of: fun or frustration? Have you passed these beliefs of "you're either good at math or you're not" to your children? How can you change your mind set to that of encouraging math in your home even if you may not feel confident about it?
2. How have you introduced math your children? Do you use creative games or examples? Does your child enjoy math? How could you and your child work together to make math fun?
3. This episode explains that Common Core Math's aim is to not only to teach students how to use math, but also why it works and when to apply it, creating well-rounded understanding of math. Has your outlook of Common Core Math changed? Why or why not?
4. Where can your child get computer science education? At the library? At school? Online?
5. What is something your child is interested in (like baseball) which you can use to teach math?
6. How can you show your child you every day use of math? Figuring out a tip at a restaurant? Or how much of a discount you get a store?

## About the Guests



**Matt Larson** is president of the National Council of Teachers of Mathematics (NCTM), a 70,000-member international mathematics education organization. Previously, Larson was the K–12 curriculum specialist for mathematics in Lincoln (Nebraska) Public Schools for more than 20 years. Larson is a frequent speaker before mathematics education audiences, and he has authored or co-authored several books, including a series on professional learning communities and Common Core Mathematics. He is co-author of *Balancing the Equation: A Guide to School Mathematics for Educators and Parents*, and he was on the writing team of *Principles to Actions: Ensuring Mathematical Success for All* (NCTM, 2014). Larson has taught mathematics at the elementary through college level and has held an appointment as an honorary visiting associate professor at Teachers College, Columbia University. In 1994 he was recognized for his teaching accomplishments with a U.S. West Outstanding Teacher Award.



**Megan Cicconi** serves as the director of instructional and innovative leadership at the Fox Chapel Area School District. In this role, Ms. Cicconi builds instructional capacity, infuses innovation into current systems, and collaborates with business and community organizations to develop partnerships to the benefit of students. Previously, she was the director of instructional innovation at the Allegheny Intermediate Unit (AIU). In addition to her roles as professional developer and curriculum writer, she operated the Center for Creativity (CfC) at the AIU. Ms. Cicconi is published internationally in peer reviewed journals, such as Springer’s Early Childhood Education Journal. She is a certified [code.org](http://code.org) affiliate, a certified LETRS trainer, and Pa Inspired Leadership facilitator. Ms. Cicconi is also the co-founder of Sprout Fund Change Machine and serves on Carnegie Mellon’s CREATE Lab Satellite Network advisory board and Arts Education Collaborative Steering Committee.



**Betsy Stein** is the Director of Educational Services for the Boys & Girls Clubs of Western Pennsylvania, and is a certified teacher with a BA in Elementary Education and an MS in Education, specializing in Integrating Technology into the Classroom. She has been with the Boys & Girls Clubs since 2008. As the Director of Educational Services, she develops and manages state and federally recognized after school education programs for students in grades K-12 across Allegheny County. Ms. Stein works with staff and other community partners to ensure quality out-of-school-time programming for youth. The educational programs serve over 2,000 youth across Allegheny County and are aligned with state and national standards.

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## Online Resources

Parent Roadmaps to the Common Core Standards- Mathematics

[www.cgcs.org/page/244](http://www.cgcs.org/page/244)

The Common Core makes simple math more complicated. Here's why.

[www.vox.com/2014/4/20/5625086/the-common-core-makes-simple-math-more-complicated-heres-why](http://www.vox.com/2014/4/20/5625086/the-common-core-makes-simple-math-more-complicated-heres-why)

What should parents do when they don't understand their kids' Common Core homework?

<http://hechingerreport.org/back-off-parents-its-not-your-job-to-teach-common-core-math-when-helping-with-homework/>

The Math Standards: Content and Controversy

<http://hechingerreport.org/the-math-standards-content-and-controversy/>

### PBS Parents

- Math Tips for Parents [www.pbs.org/parents/education/math/math-tips-for-parents/](http://www.pbs.org/parents/education/math/math-tips-for-parents/)
- Math Activities [www.pbs.org/parents/education/math/activities/](http://www.pbs.org/parents/education/math/activities/)
- Math Games [www.pbs.org/parents/education/math/games/](http://www.pbs.org/parents/education/math/games/)
- Eat Your Math Homework [www.pbs.org/parents/kitchenexplorers/2011/07/05/eat-your-math-homework/](http://www.pbs.org/parents/kitchenexplorers/2011/07/05/eat-your-math-homework/)
- Workbooks – Work = Truly Fun Math [www.pbs.org/parents/education/math/math-tips-for-parents/truly-fun-math/](http://www.pbs.org/parents/education/math/math-tips-for-parents/truly-fun-math/)
- What You Should Know About Common Core Math [www.pbs.org/parents/expert-tips-advice/2015/04/math-common-core-for-parents/](http://www.pbs.org/parents/expert-tips-advice/2015/04/math-common-core-for-parents/)
- Using Patterns to Boost Your Child's Math Skills [www.pbs.org/parents/expert-tips-advice/2015/09/patterns-boosts-childs-math-skills/](http://www.pbs.org/parents/expert-tips-advice/2015/09/patterns-boosts-childs-math-skills/)

### Common Sense Media Math Apps and Games

- [commonsensemedia.org/blog/reflex-math-and-9-more-free-math-games-for-kids](http://commonsensemedia.org/blog/reflex-math-and-9-more-free-math-games-for-kids)
- [commonsensemedia.org/lists/best-math-games-and-apps-for-kids](http://commonsensemedia.org/lists/best-math-games-and-apps-for-kids)
- [commonsensemedia.org/blog/6-research-backed-sites-and-apps-that-can-boost-your-kids-report-card](http://commonsensemedia.org/blog/6-research-backed-sites-and-apps-that-can-boost-your-kids-report-card)
- [commonsensemedia.org/lists/common-core-friendly-english-and-language-arts-apps-games-and-websites](http://commonsensemedia.org/lists/common-core-friendly-english-and-language-arts-apps-games-and-websites)

PBS Learning Media Math Games and Videos for the Common Core

<http://wqed.pbslearningmedia.org/collection/math-games-and-videos-for-the-common-core/>

Math Literature: Creating a Math Library at Home

<http://ow.ly/ziES3060Fe1>

Teach Your Kids to Code: 6 Beginner's Resources for Parent

[www.edutopia.org/blog/teach-kids-coding-resources-parents-matt-davis](http://www.edutopia.org/blog/teach-kids-coding-resources-parents-matt-davis)



## A Parent's Guide to Surviving Common Core Math

[www.hotchalkeducationnetwork.com/parents-guide-to-surviving-common-core-math/](http://www.hotchalkeducationnetwork.com/parents-guide-to-surviving-common-core-math/)

## Research: Digital media could aid early math skills

[www.eschoolnews.com/2015/11/23/early-math-skills-842/](http://www.eschoolnews.com/2015/11/23/early-math-skills-842/)

National Council of Teachers of Mathematics

Homepage <http://www.nctm.org/>

Understanding Common Core Standards <http://www.nctm.org/ccssm/>

FAQs about Common Core <http://www.nctm.org/mathcommoncore/>

Code.org – Non-profit promoting coding skills to all students

<https://code.org/>

White House video – President Obama does Hour of Coding

[www.whitehouse.gov/blog/2014/12/10/president-obama-first-president-write-line-code](http://www.whitehouse.gov/blog/2014/12/10/president-obama-first-president-write-line-code)

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