The Summer of 2013: S'mores and Apps

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The dog days of summer have begun. Schools are closed. The annual summer reading list is taped on the fridge. For many kids, the summer is not just about spending time at the beach and enjoying s'mores at campfires; an increasing number of parents send their children to camps that offer some type of educational value, such as learning a new language or exploring science. Bookstores are stocked with summer learning books that promise to prepare their children for the next grade. A new generation of tech-savvy parents has discovered mobile apps and online software as a learning tool for their children.

In 2011, already more than a quarter of all parents had downloaded apps for their children to use, according to a Common Sense Media study. The higher use of mobile devices has accelerated the adoption of educational apps at home since then. The Pew Research Center estimates that tablet ownership among adults in the United States rose from 10 percent in December 2012 to 34 percent in June 2013—and 50 percent among parents with young children. About 60 percnet of children ages 8 to 11 use phone apps based on a study conducted by the research firm KidSay.

The appeal of downloading educational apps for kids is simple. The gamified approach of apps engages kids to solve math problems and other tasks that they may not want to do. They can collect virtual coins and rewards for solving a variety of challenges. Like adding vegetables to favorite dishes to make meals more nutritious, practicing math via apps becomes fun, and makes the use of mobile devices for kids more beneficial.

Here are the five most popular math apps for children available on iTunes, which can make the summer more enjoyable.

1. Published by Scholastic, **Sushi Monster** (free) practices math fact fluency in a fun way. Kids help cute monsters make a target sum or product using addition and multiplication. Each correct answer earns a coin.

2. Using all types of bugs, from bees to fireflies, **Bugs and Buttons** ($2.99) engages children through game play that progressively adapts to their skill level. Learning skills include counting path finding, patterns, sorting and tracking.

3. The **Team Umizoomi Math** ($2.99) uses the characters from Nickelodeon's Team Umizoomi series to teach fundamental math concepts to preschoolers. Children can unlock the key to Umizoomi City by overcoming a series of challenges, including identify numbers; one-to-one number correspondence; rote counting; reading number symbols; associating symbols with quantity; and basic addition and subtraction. Games are leveled, and designed to increase in difficulty.

4. **Long Division Touch** **(free)** teaches the mechanics of long division. Drag digits down, slide the decimal into the correct position, and tap to identify repeating decimals. Lessons include long division basics and decimals.

5. **5.** By letting kids add and subtract bluebirds, doves, plums, and peaches, **The Math Tree**($0.99) introduces concepts like addition, subtraction, and numerical equations. Kids learn by doing. They tap and move items to and from a tree. As a task is completed, the numerical equation is highlighted piece by piece, demonstrating the relationship between the parts visually.

It's already a hard choice for parents to select the right app. For older kids there are even more options. Google is hosting the Google Maker Camp for teens from July 8 to August 16, featuring DIY projects around the following themes makers in motion, create the future, fun and games, art and design and DYI music. Participants use Google+ Hangout to get introduced to projects and their makers.

The technology adoption for learning does not stop at home. It's leaping into classrooms as well. Schools are experimenting with technology in the classrooms for individualized learning. According to GSV Advisors, investment in ed tech increased to $1.1 billion in 2012, with the majority of the investments happening in the United States. To date, more than 48,000 developers are working on children's apps says The Association for Competitive Technology.

While the potential for using mobile technology for education is promising, it is not without trappings. Companies came under scrutiny for collecting data on children's use of apps for marketing purposes. The Federal Trade Commission's Children's Online Privacy Protection Act Data (COPPA) governs the collection and use of personal data from children under 13 years of age and forbids any unauthorized use of data by website or app companies.

Parents can protect data sharing not only with parental controls, ad-free apps, and restricted social media sharing. Depending on the age, they can teach their child how to use the mobile devices safely for games and learning. After all, while we want to remember the incredible things we did this summer, we might want to keep some of its highlights in the family.