Learn to code

By the year 2020, there will be 1.9 million computing jobs and only 400,000 computer science students to fill them, according to data from the Bureau of Labor Statistics. "This is a problem, especially since only one out of 10 high schools offer computer science courses," says Karen Dharni Safran, vice president of strategic partnerships at iD Tech, which has two O.C. offices. "Today's kids simply aren't prepared for the future. ... Coding will only become more prevalent and part of our society, so it's critical to teach students how to understand logic-based thinking."

We are all consumers of technology, but what if the kids who aren't interested in technology could become creators of it as well? Raj Sidhu, lead instructor at codeCampus Academy in Costa Mesa, says, "Learning how to code isn't just about making apps or games — it's about learning how the world is increasingly driven by technology, and understanding how that technology works is so crucial to our children's success as learning how to use such critical reasoning or chemistry. Not every child needs to grow up to be a programmer. But every child needs to be equipped with the skills to excel and innovate in whatever future they choose for themselves."

Think of coding as another language that would be beneficial for children to learn. You can sign your kids up for a free course online through sites like Code.org or Khan Academy and enroll in a class or camp.

Khan Academy

Khan Academy

KhanAcademy.org offers instructional videos, practice exercises and other educational content on topics including history, math, science, economics, and computer programming. Create an account for free. The computer programming module provides introductions to languages such as JavaScript, HTML/CSS and SQL. You can learn how to create drawings, animations, games and Web pages.

khanacademy.org

iD Tech

iD Tech offers summer day camps and overnight camps for kids ages 6-12 and teens ages 13-18 on campuses around the country, including Stanford, UCLA, Princeton and MIT. Each camp offers stimulating courses and small class sizes: 8 students per instructor. iD Tech has programs in both Orange and Los Angeles counties. At UC Irvine, the iD Programming Academy and iD Game Design and Development Academy are two-week, teen and pre-college, immersive programs. At University High School in Irvine, iD Tech's Wiki is available for aspiring young techies. Courses are offered on junior robotics, "Minecraft" game design, programming and more. **idtech.com**

Code.org

Code.org is a nonprofit organization dedicated to spreading the word about computer science and providing access to computer science. Launched in 2013, Code.org postulates that computer science should be part of the core curriculum alongside biology or algebra, and that "Every student in every school should have the opportunity to learn computer science." The website and the courses are free. Click on the Students section and find online courses curated by Code.org. There are 20-hour courses for computer science fundamentals offered for various ages, from pre-school. **code.org**

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codeCampus Academy

codeCampus Academy

codeCampus Academy in Costa Mesa offers computer game-design courses to students in second to eighth grades. This spring, the academy plans to introduce courses on mobile app development, hardware and electronics and even robotics and artificial intelligence for older students. Instructor Raj Sidhu says "Our goal is to make computer science as fun, engaging and inspiring for our students as possible, and to make them feel confident about coding so they move into high school and college." Sidhu is the creator of Code Monkey Island, a board game that introduces children as young as 6 to fundamental programming concepts.

codecampusacademy.com

PBS KIDS ScratchJr.

PBS KIDS introduced a free app to help kids learn to code. Users can create their own interactive stories and games featuring some of their favorite PBS characters. Designed for kids ages 5-8, the app has the potential to help kids learn to solve problems, design projects and express themselves creatively. Found in the App Store and Google Play.