



STEAM LESSON



Why kids should learn to code

Think your kids are too young to learn to code? Think again.

Coding (also called programming or developing) is telling a computer, app, phone or website what you want it to do. Some educators and experts are calling it the 'new literacy'—a subject so important that **every child needs to know the basics** to excel in our rapidly changing world.

Four- and five-year-olds can learn the foundations of coding and computer commands before they can even write and spell words. Older kids can learn to code through classes, mentors and online tutorials (see below for learn-to-code resources for all ages).

Learning to code prepares kids for the world we live in today. There are tons of jobs and occupations that use code directly, like web designers, software developers and robotics engineers, and even more where knowing how to code is a huge asset—jobs in manufacturing, nanotechnology or information sciences. However, for most kid-coding advocates, reasons for learning to code run much deeper than career prep.

Understanding Code Helps Explain the World

Today, computing is involved in almost all aspects of our lives, from communications and education to social media, banking, information, security and shopping. Networked computers are capable of controlling our homes' thermostats and lighting, our cars and our health records.

If grade-schoolers are taught biology and mathematics in order to understand the world around them, then knowing the basics of how computers communicate—and how to engage with them—should be a given.

Learning to Code Develops Problem Solving and Computational Thinking Skills

The skills that come with computer programming help kids develop new ways of thinking and foster problem-solving techniques that can have big repercussions in other areas.

Computational thinking allows pre-schoolers to grasp concepts like algorithms, recursion and heuristics. Even if they don't understand the terms, they'll learn the basic concepts (and for parents who don't understand these terms)

Coding is Fun!

Beyond the practical reasons for learning how to code, there's the fact that creating a game or animation can be really fun for kids. Andrew Duff, a father of two from Toronto, introduced his kids to coding through **Hour of Code**, a series of one-hour tutorials that teach the basics of coding and computer science. More than 119 million people have tried the Hour of Code since it was introduced in 2013.

"My wife and I wanted our kids to be introduced to computer coding, with the hope they'd develop their love of making things," he says. "They both love video games and making stuff with cardboard, paper and Lego. So when we heard about the free coding lessons, we thought it would be a great opportunity for the kids to see how games are made and possibly ignite a new kind of maker passion."

REF: by Erick Missio 2015

[HTTPS://WWW.CBC.CA/PARENTS/LEARNING/VIEW/WHY-KIDS-SHOULD-LEARN-TO-CODE-AND-HOW-TO-GET-THEM-STARTED](https://www.cbc.ca/parents/learning/view/why-kids-should-learn-to-code-and-how-to-get-them-started)