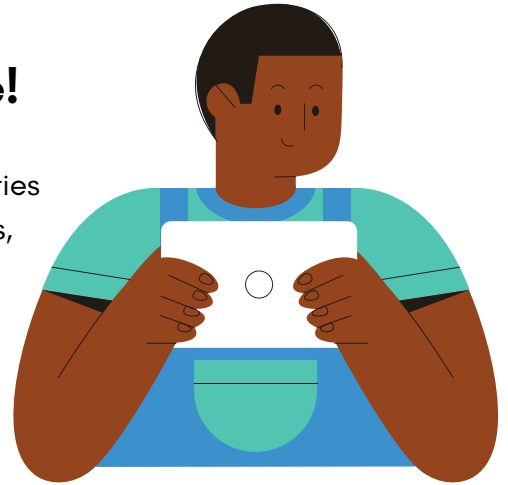


Helping your child learn Computer Science

YOU can help kids learn Computer Science!

You don't need to be a tech expert to support your child's Computer Science (CS) learning journey. There are many “unplugged” CS activities that introduce CS concepts and practices through hands-on activities, including ones that don't even need a computer. Learn more on the next page which provides a list of **Getting Started with Computer Science** resources organized by age range.



Put on your student hat.

The best teachers are lifelong learners, so put on your student hat! The most important thing to remember is that you don't need to know all the answers. You will be helping your child learn key CS practices such as thinking creatively, problem solving, and working collaboratively, by modeling for your child that it's okay to make mistakes and not have all the answers.



Let's talk about Computer Science.

Sometimes simply talking with your child about computing can make all the difference: it can be the first step in helping your child learn about CS. Better yet, you don't need a device or computer to start conversations with your student about what CS is and why it's important to learn, or to encourage them to try a CS course at school. Students sometimes don't see themselves doing CS based on who they've seen doing it—and those images might not look like them, especially for girls and students of color. In spite of this lack of representation, it's important to ask why that might be the case. By talking to your child, you can help them see they can do anything and be anything. Also, having critical discussions about the ethics of computing can support your child learning about both the good and potential harms of technology. See the **Sparking Conversations about Computer Science** section to find example questions to ask yourself, your child, and your school about technology, what is (and isn't) CS, and why it's important for all kids to learn.

Getting Started with Computer Science (CS)

There are many resources out there to help you support your child learning CS, and here are a few of our favorites to get you started. Keep in mind that the best learning experiences aren't necessarily the most flashy ones, but rather, ones that will connect to your child's interests or are personally relevant to their community and lives. Consider how your child can take what they learn with CS and apply it to what they're passionate about.

Young Children (Ages 4-7)

Early exposure can teach computational thinking (or how to think like a computer) and help young children have a healthy relationship with technology, so they see it as a creative medium rather than just for watching videos or playing games. Learning can start at home with books, coding apps designed for younger learners, or "unplugged" activities that don't require any devices.

- **Computational Thinking for Parents and Families** **handout:** csforca.org/computational-thinking-for-parents-and-families
- **CS Unplugged website:** csunplugged.org
- **How to Code a Sandcastle book:** joshfunkbooks.com/how-to-code-a-sandcastle
- **Hello Ruby book:** helloruby.com
- **Scratch Jr. iPad app:** scratchjr.org

Elementary and Middle School (Ages 8-12)

This is a popular age to introduce kids to coding. Establish your goals: Do you want to expose them to computing for their general education? Do they already have an interest in computing or STEM? Or see the **Why do I want my child to learn Computer Science?** section for more. Consider what offerings in school or out of school would best fit your child's interests, learning style, and comfort level: designing a video game, joining an all-girls coding club, or doing online activities at home.

- **Six Computer Science Games and Activities to Entertain Your Kids:** csforca.org/six-computer-science-games-and-activities-to-entertain-your-kids
- **Scratch programming for kids:** scratch.mit.edu
- **Micro:bit programmable device:** microbit.org
- **The Clubhouse Network out-of-school clubs:** theclubhousenetwork.org
- **Girls Who Code clubs:** girlswhocode.com

Teens and High School (Ages 13-18)

Talk to your teen about CS, even if they are already taking classes. Learn about what interests them, discuss CS careers or Career and Technical Education (CTE) pathways, and have important discussions about the promises and perils of tech and AI. How can they apply their learning to their interests, futures, and community?

- **Python programming:** python.org
- **First Robotics club and competition:** firstinspires.org
- **MakerFaire events:** makerfaire.com
- **Power On! graphic novel:** poweronbook.com
- **Coded Bias documentary about biased AI:** codedbias.com