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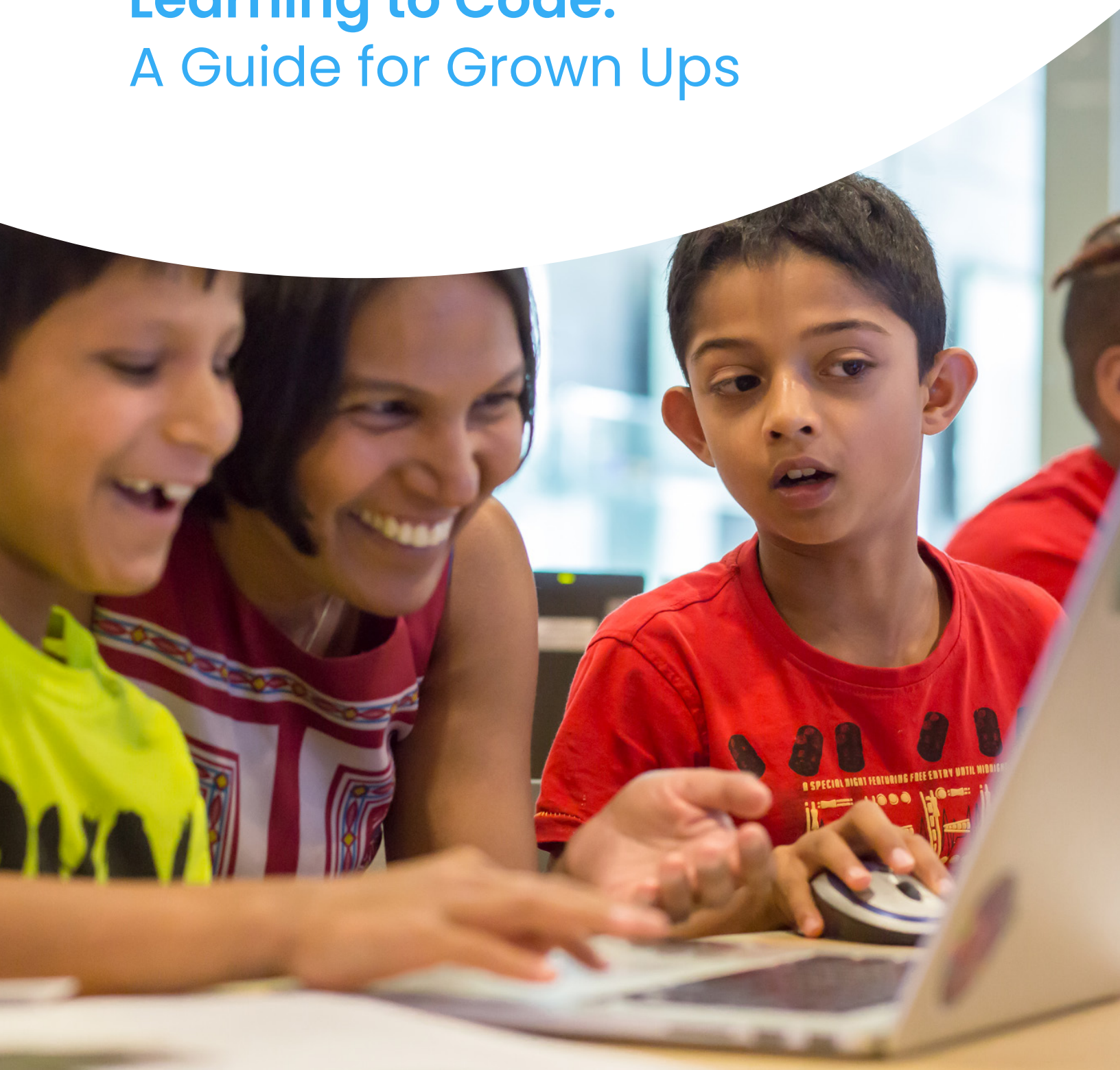
Learning to Code:
A Guide for Grown Ups



What this guide offers

Technology is changing the world at an unprecedented pace, but we all have the power to keep up with it, and use it with our kids as a tool to improve our communities.

This guide is a friendly starter for parents and care-givers of all ages, and all levels of computer literacy. We want this guide to help you feel more confident learning alongside the children you care for, as you help them to become more engaged digital citizens.

Why should kids learn to code?

All of us are living in a digital world that runs on computer code and algorithms—but it isn't always easy to understand how these work and influence the way we interact with the world.

"I don't want my children sitting in front of a screen all day," you might lament. But learning about coding gives your kids the critical thinking skills to use technology as a tool, rather than passively consume it. As kids are growing up in a time of such dramatic change, they deserve to understand how this technology works, and how it affects them.

This isn't about creating a generation of programmers, but equipping kids with the tools they need to prepare for future success and strengthen their rights as digital citizens.

Along the way, coding teaches them how to learn, to think creatively, and to problem-solve - all crucial skills for living in the 21st century.

Breaking it down - a glossary

Algorithm: A set of step-by-step instructions typically created to solve a problem or accomplish a task.

Artificial Intelligence (AI): The simulation of how humans think and act on a machine. Real world examples of AI include systems that are able to understand speech or images, self-driving cars, facial recognition, online recommendations we see on Youtube or Netflix, and web searches.

Machine learning: Systems that can do what comes naturally to humans and animals: learn from examples. It is a subfield of Artificial Intelligence.

Deep Learning: More complex systems that can learn from more complex examples. It is a subfield of Machine Learning.

Code: How humans tell computers what to do; there are many programming languages that are used to code.

Computational Thinking: When we formulate a problem or creative work clearly enough and systematically enough that we could tell a computer or a human how to do it. (Examples: a knitting pattern, a recipe, a series of repeated dance steps, or musical notes).

Digital Citizen: A person who develops skills and knowledge to use the internet or digital technology appropriately and think critically about the information they send or recieve online.

Digital Literacy: The ability to use, understand, create and communicate using digital technology.

Scratch: A programming language where you use code blocks to create animations, interactive stories, games, music and much more. It's a free platform where you can create and share with others in the online community.

micro:bit: A mini-computer that can be programmed to do many tasks. It has a built-in accelerometer, radio transmitter, 5 by 5 LED display and two programmable buttons. It's an interactive learning tool that can be used to explore the rich potential of physical computing.

Unplugged: A way to introduce computational thinking and coding without using any technology.

Learning to code together

No one is too old to learn to code—and learning alongside the kids in your care is a great way to show them the power of lifelong learning.

You don't need all the answers; showing up and diligently working through problems or projects sets a great example for kids. If at first you don't succeed, use your mistakes as an opportunity to show learning through trial and error, and the power of patience and perseverance. There are plenty of free-to-access online tools, forums and support sites that can help you find the solutions you need.

TOP TIP: *Instead of viewing learning to code as a single objective, break it down into small chunks, tasks or goals. This will make it more manageable to face - and you'll be able to see your progress!*

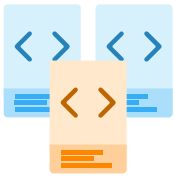
The first steps are going to be the hardest - this is a new language, after all! Once you've learned the grammar, and how to structure your code and "think" like a machine, you'll find it easier to learn new skills, capabilities and even additional languages!

TOP TIP: Set realistic goals: you don't need to be able to code an app from scratch, but understanding how algorithms work will help you understand why Google serves you the results it does - and how that impacts the digital services you access.

The most important part of coding is the learning - and that process can be as collaborative as you want! Creating a digital skills community with other adults is a great way to level up your skills in a relaxed and social environment, where your children can join in or entertain themselves with fellow kids. This can also provide relevant and valuable experience to help you return to the workplace, or launch a career change.

TOP TIP: Let your child play the teacher role and explain different ideas and tech concepts to you. Not only does this let them revise what they are learning, but it helps you grow your confidence around talking about digital concepts - together.

Activities



Continue your coding journey with our Resources.

ACCESS RESOURCES →

Browse even more learning materials provided by our partners at Code.org.

VISIT CODE.ORG →

Check out our upcoming virtual Events.

BROWSE EVENTS →

Get hands-on by building experiments that seek to meet Global Goals with Inksmith's Climate Action Kits (this link gives you a 5% discount and a percentage of sales will be donated to KCJ!)

GET A CLIMATE KIT →

Who we are

Kids Code Jeunesse is a Canadian, bilingual charity that has been teaching kids about coding and digital citizenship since 2013. We do this in a few ways: in the classroom, with kids and teachers; in libraries and public spaces with communities; with special fun-focused events; with teacher trainings and now, we're trying to get parents and care-givers involved.

KCJ's ongoing commitment to preparing kids for tomorrow's world

Our #kids2030 initiative brings artificial intelligence, ethics, and global issues to the forefront of kids' education.

By 2030, we'll educate over **1,000,000 kids** and **50,000 educators** on AI & ethics, and on how technology can achieve the UN's Global Goals. This initiative connects to all of our programs and workshops, creating a 10-year roadmap with a clear mission to help the next generation set the course for a better future.

Support our mission by donating to KCJ →

Introduce AI to your kids with some games →

Sign-up to our monthly digest →