

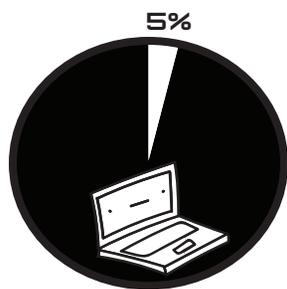
# Code. What is it?

Code, coding, programming- all describe the language used to communicate with computers.

But coding is so much more. When you learn how to code, you also gain an understanding of concepts beyond the language. This kind of thinking will lead you to a smarter relationship with technology and other people.

Coding is a tool that will help you do the things you've always wanted to do, because every field needs innovators, thinkers, and leaders.

# Why is learning to code important?



Despite the fact that Latino/as are a growing portion of the US workforce, they are highly underrepresented in the growing STEM (Science, Technology, Engineering, and Math) economy.

Latino/as make up only 5% of the US tech industry workforce.

STEM jobs are the fastest growing segment in the U.S.

71% of these jobs involve computers.

More than 1.7 million programmer-specific job opportunities will be available in 2022, with average salaries over \$83,000.



# Where to start?

If you want your kid to be a doctor, you don't give them a knife and say "go for it!" Similarly, many of the languages used in professional settings are too complex for kids. Luckily, there are a ton of resources for kids to get into programming.

These get their young minds ready and interested so when the time comes, it'll be second nature.

## Scratch

([www.scratch.mit.edu](http://www.scratch.mit.edu)) is a programming language for kids (ages 8 and up) that lets you create games, music, and animations. It's free and available in Spanish.



## Scratch JR

([www.scratchjr.org](http://www.scratchjr.org)) is an app available for free on Ipad that teaches younger children (ages 5-7) basic coding concepts.



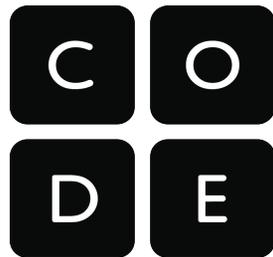
## Touch Develop

([www.touchdevelop.com](http://www.touchdevelop.com)) is a free coding platform created by Microsoft that shows you how to build an app step by step.



## Code.org

([www.code.org](http://www.code.org)) is a website dedicated to teaching kids the basics of code. Their vision is that every student in every school should have the opportunity to learn computer science. Code.org is free and available in Spanish.



# Next steps:

**Code Academy** (<http://www.codecademy.com>) is a website that has lessons on coding languages: HTML, CSS, Javascript, Python, Ruby, PHP, and JQuery. It is free to sign up. All you need is an e-mail address.

**Treehouse** (<http://teamtreehouse.com>) is a website similar to Code Academy but available for free through Los Angeles Public Library. All you need is your library card.

# How can I support my child?

Empower your kids to experiment. If a he or she is frustrated and struggling, avoid doing things for them. Instead, ask them:

- What do you think you should do?
- Why do you think it's not working?
- What is your program doing?
- What do you want it to do?

Praise their problem solving process, not just the outcome of it.

When possible, have your child explain their code to you or a family member. Explaining something to others makes kids feel valued. Promote leadership in the space whenever possible.

Be open and honest. If you don't know the answer to a question, admit it and figure it out together.

Be enthusiastic! Honest enthusiasm is critical to a child's confidence. Coding can be frustrating for beginners (and professionals). A little cheerleading can make a student feel good about their progress and encouraged to continue.

Remember, everyone has bad days. Be persistent.



## Plussing Sessions (adapted from YoungMakers.org)

Plussing sessions provide an opportunity for people to pause and share their ideas, progress, challenges, and next steps with someone else. Plussing is a term used at Pixar to mean "finding what's good about an idea and making it even better".

### Here are questions you can ask your child:

- What is your project vision?
- What inspired you to pick this project?
- Do you know of other people who have done projects similar, or is this one-of-a-kind?
- What do you think the hard parts are going to be?
- What are the easier parts?

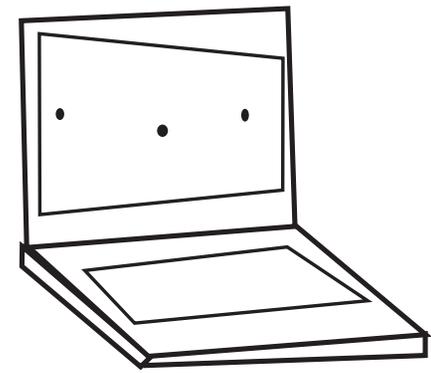
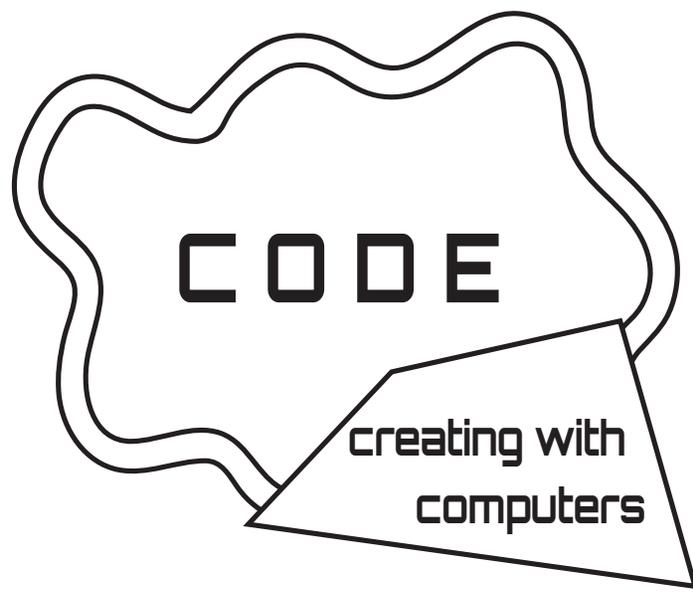
### Why have plussing sessions?

They give kids a chance to talk about their failures in a positive and constructive way.

It might take some time for students to come up with a project idea. Ask questions like, "What do you like to do?" to create an encouraging environment.

## References

- CODE2040 ([www.code2040.org](http://www.code2040.org))
- Scratch ([www.scratch.mit.edu](http://www.scratch.mit.edu))
- Touch Develop ([www.touchdevelop.com](http://www.touchdevelop.com))
- Code.org ([www.code.org](http://www.code.org))
- Scratch Jr ([www.scratchjr.org](http://www.scratchjr.org))
- Young Makers ([www.youngmakers.org](http://www.youngmakers.org))



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