



What is Coding?

Coding is a way of putting information into a different form—it is how computer programs are written. Coding puts information and directions into a language that the computer will understand.

What is coding used for?

Did you ever wonder how your favorite video game or app works? Answer: with CODING! Software designers write special code to let the computer know exactly what to do with the information it is given.

Why is coding so important??

Learning to code at all levels and ages uses CREATIVITY and PROBLEM SOLVING and helps to prepare students for ANY future career.

Each year, during Computer Science Technology Week, students are challenged to complete **ONE HOUR OF CODE**—and millions of students have participated.

Tutorials for beginners

Educator Notes

A screenshot of a Code.org tutorial page. On the left, there's a circular graphic with a photo of Mark Zuckerberg, a red Angry Bird character, and a green pig character. Below the photo are two buttons: "move forward" and "turn right". The main text reads "Write your first computer program" and "Code.org". Below that, it says "Learn the basic concepts of Computer Science with drag and drop programming. This is a game-like, self-directed tutorial starring video lectures by Bill Gates, Mark Zuckerberg, Angry Birds and Plants vs. Zombies. Learn repeat-loops, conditionals, and basic algorithms. Available in 20 languages". It also mentions "Ages 6-106 | Modern browsers, smartphones, tablets" and "532,747 participants". At the bottom, there's a URL "http://hourofcode.com/co" and a "Go" button.

Write your first computer program
Code.org

Learn the basic concepts of Computer Science with drag and drop programming. This is a game-like, self-directed tutorial starring video lectures by Bill Gates, Mark Zuckerberg, Angry Birds and Plants vs. Zombies. Learn repeat-loops, conditionals, and basic algorithms. Available in 20 languages

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<http://hourofcode.com/co>
Teacher's Notes

Go



The Hour of Code is here.

Join millions to learn for one hour.

What is the Hour of Code?

- 1** A self-guided activity for students of all ages, kindergarten and up. Tutorials will work on a browser, tablet, smartphone, or even with no computer at all.
- 2** No experience needed from teachers and students
- 3** Tutorials will feature lectures from Mark Zuckerberg and Bill Gates, and artwork from popular games Angry Birds and Plants vs. Zombies.
- 4** An effort to demystify code, and change the conversation around computer science.

How can I try coding?



BOOKS about coding that you can check out from the library:

- *Computer Coding Workbook: An Introduction to Computer Programming* by Jon Woodcock
- *How to Code in 10 Easy Lessons* by Sean McManus
- *How to Code: A Step-by-Step Guide to Computer Coding* by Max Wainwright
- *What is Computer Coding?* by Mary K. Pratt
- *Help Your Kids With Computer Coding: A Unique Step-by-Step Visual Guide, from Binary Code to Building Games*



WEBSITES to visit:

- Code.org <https://code.org/>
(For all ages) **Official site for Hour of Code:** Information about coding, coding tutorials, games and activities for all ages with themes such as Angry Birds, Frozen and Star Wars.
- Scratch <https://scratch.mit.edu/>
(Age 8+) Graphical application gives kids a taste of programming.
- Code Monkey <https://www.playcodemonkey.com/>
(Age 9+) Solve puzzles, help the monkey, learn to program.
- Code Monster from Crunchzilla <http://www.crunchzilla.com/code-monster>
(Age 11+) Fun programming lessons from a friendly monster guide.
- Mozilla Thimble <https://thimble.mozilla.org/>
(Age 12+) Fantastic online editor teaches kids to write the Web.
- Codecademy <https://www.codecademy.com/>
(Age 13+) Smart site gives teens hands-on experience with coding.

FREE Coding **APPS** to try:



- The Foos: Code for an Hour
(Age 5+) Visual code meets story-based game; kids learn by doing.
- Kodable
(Age 6+) Fun programming logic for kids, great resources for parents
- ScratchJr
(Age 6+) Tool helps kids program their first multimedia project
- Daisy the Dinosaur
(Age 7+) Cute, free coding game covers the basics
- Tynker
(Age 7+) Learn programming with visual code blocks, fun coding puzzler helps kids ease into complex concepts.
- Lego Mindstorms Fix the Factory
(Age 8+) Program robots in short coding puzzler; tricky later levels
- Cargo-Bot
(Age 10+) Challenging puzzler teaches kids to think like programmers.
- Hopscotch
(Age 10+) Programming made easy! Make games, stories, animations and more—easy to use visual tool makes programming fun for kids.
- Lightbot
(Age 10+) Programming Puzzles—challenging programming puzzler teaches coding logic.