

Kids Who Code Can Change the World

DK builds on kids coding series with a book that uses video games as a fun, creative tool to advance kids' computer science skills

Coding Games in Scratch by Dr. Jon Woodcock

“An absolutely wonderful introduction to programming games.” —Kirkus Reviews

For young gamers, or the world's next Bill Gates, Steve Jobs or Mark Zuckerberg, learning to code can be a gateway to a lifetime of opportunities. YouTube CEO Susan Wojcicki says, “Learning to code makes kids feel empowered, creative, and confident.”

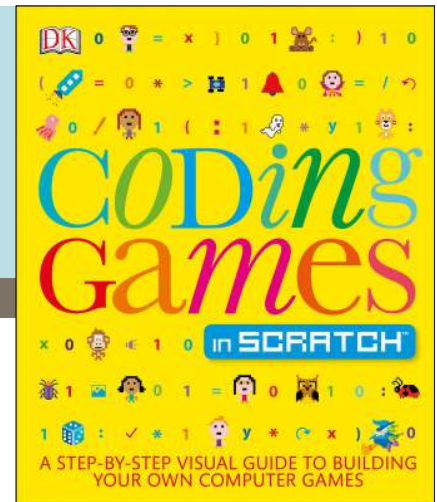
To help get them on their way, DK announces two new additions to their line of children's computer programming books with *Coding Games in Scratch: A Step-by-Step Visual Guide to Building Your Own Computer Games* (Dec. 2015) and *Coding in Scratch: Games Workbook* (Jan. 2016). The books follow DK's popular 2014 coding book aimed at parents, *Help Your Kids with Computer Coding*, but this time speaking directly to kids (ages 9-12).

Written by coding expert Dr. Jon Woodcock for readers with little to no coding experience, *Coding Games in Scratch* guides kids through building platform games, puzzles, racers and 3-D action games using the popular programming language Scratch. The book and workbook are simple and easy-to-follow with Minecraft-style pixel art, covering many different styles and types of games, such as classic and arcade games. When children learn to code in Scratch, they learn essential skills and strategies for solving problems, designing projects and communicating ideas.

“Games are a huge industry, but the world of code and computers touches every aspect of our lives,” said Woodcock in an interview with *FamilyFans Magazine*. “There's a huge overlap between gaming and ‘serious’ applications in our age of smart phones and the like. You might start writing games, but end up changing the world by coming up with the next Twitter or Facebook.”

Fostering an early interest in computer science could lead today's kids to some of the best-paying jobs in the world. Gates wrote his first program at 13. Jobs and Steve Wozniak created the arcade game Breakout before founding Apple. Zuckerberg developed his own computer games in childhood, long before Facebook. Kids who tinker with video games, both playing and creating them, stand to gain one of the most valuable skills in today's marketplace.

Coding Games in Scratch and *Coding in Scratch: Games Workbook* support the Common Core state standards and empower parents and educators with a creative way to teach coding at home and in the classroom.



BOOK SPECS

Published by DK

December 1, 2015

By Dr. Jon Woodcock

ISBN 9781465439352

Paperback, Full-color

224 pages

Ages 9-12

\$19.99 U.S.

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About the Author

Dr. Jon Woodcock has a degree in Physics from the University of Oxford and a Ph.D. in Computational Astrophysics from the University of London. He started coding at the age of eight and has programmed all kinds of computers from single-chip microcontrollers to world-class supercomputers. His many projects include giant space simulations, research in high-tech companies, and intelligent robots made from junk. Jon has a passion for science and technology education, giving talks on space and running computer programming clubs in schools. He has worked on numerous science and technology books as a contributor and consultant, including DK's *How Cool Stuff Works* and *Computer Coding For Kids*.

Q&A with Jon Woodcock

DK: Aren't computer games just a waste of time?

Jon Woodcock: Kids love playing computer games, which makes them a great way to create interest in programming. It's an obvious next step to want to know how games work and what's going on under the covers. Using a great tool like Scratch, it's very easy to take a game player and turn them into an excited creator of games in just a few minutes. Most kids have a few ideas for computer games and knowing what you'd like to achieve, but not quite how to do it, is a real motivator for learning.

DK: You started coding when you were 8 years old—why? What were the first things you coded?

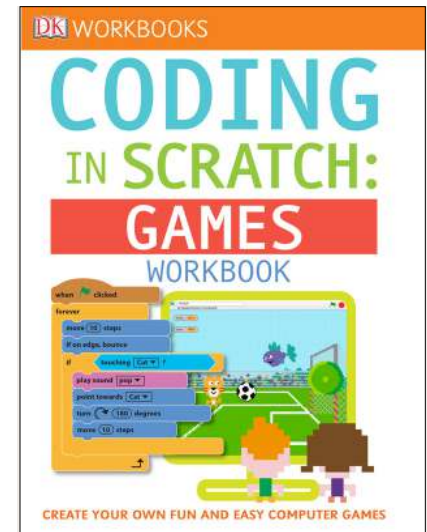
JW: My dad is an engineer and when I was young he worked with folks keen to explore the new technology of the first home computers. It was very much like the Maker movement today, lots of people experimenting and building just for the joy of it. I got swept up into the whole thing and was exposed to cutting edge technology, but in a really supportive environment. It was natural to want to be able to create and control things—and to do that you needed to learn to program. I got a book on programming from the library and taught myself on paper. Eventually my family cracked and bought a very early kit computer. From then on I was programming 24/7—games of all sorts were my favorite, but I also loved more abstract challenges like creating a spinning cube on screen, or generating prime numbers.

DK: Is it useful for kids who aren't going to become programmers or engineers to learn to code?

JW: Look around you at today's world, computers are everywhere: in your home, your car, at your work/school, even in your pockets - and with the Internet of Things even your fridge and trainers will have computers inside. We are living in the world of the computers. Being able to program a computer is like speaking another language - it enables an understanding of and access to a culture that you just won't get if you can't communicate on equal terms. An understanding of programming changes the way you think about and interact with the modern world.

DK: Do you think it's a good idea to implement coding as part of school curriculum?

JW: It's long overdue. There is a huge shift in education across the globe to transform kids from being consumers to being creators and innovators. Initiatives like the Raspberry Pi, Code Club and Hour of Code have brought coding to the attention of politicians. Cheap programmable devices are popping up everywhere allowing kids to experiment and explore technology without the traditional limits. Our world is made of information and "computational thinking" is a key skill for life today - the ability to break down and analyze problems and data in logical ways is vital - and that is at the very core of learning to program.



WORKBOOK SPECS

Published by DK

January 5, 2016

By Dr. Jon Woodcock

ISBN 9781465444820

Paperback, Full-color

40 pages

Ages 9-12

\$5.99 U.S.

DK: What's your favorite activity in *Coding Games in Scratch*?

JW: That's hard - I have so many! I love that every game in the book is a jumping off point for the readers' own projects. If I have to pick just one, then probably the platform game - Dog's Dinner. You learn to create your own world inside the computer with gravity, structures you can jump to and from, dangers, rewards. It shows off beautifully that kids can use Scratch to make really challenging and fun games, but games where they have full control over the code, so they can shape and extend every aspect of the game's world. And all the time they're learning to think about how problems are broken down and solved within the computer.

Praise for DK Computer Coding Books

"An absolutely wonderful introduction to programming games." – *Kirkus Reviews*, *Coding Games in Scratch*

Family Choice Awards winner, 2015, *Help Your Kids with Computer Coding*

"Help Your Kids With Computer Coding was just the thing I needed to give my daughter a jump start on programming a game." – GeekDad.com, *Help Your Kids with Computer Coding*

About the Publisher

DK (www.dk.com) is the best selling and award winning publisher known for informing, entertaining, and educating global audiences through beautifully designed content. DK also publishes the Eyewitness series for children and Eyewitness Travel Guides, BradyGames, Alpha Books, and Rough Guides are also available from DK, a division of Penguin Random House.

