

ScratchJr Coding Cards: Creative Coding Activities

In Coding with ScratchJr, you can land on the moon, travel deep under the sea, take a trip to a magical world, and play a game of basketball. Easy-to-follow, step-by-step instructions will guide you through these fantastic projects. Once you've got the hang of it, there are different challenges you can choose to really test your coding skills and handy troubleshooting hints to help if you need them. With Ready, Set, Code!, you'll soon be ready for the world of coding.

ScratchJr is a free, introductory computer programming language that runs on iPads, Android tablets, Amazon tablets, and Chromebooks. Inspired by Scratch, the wildly popular programming language used by millions of children worldwide, ScratchJr helps even younger kids create their own playful animations, interactive stories, and dynamic games. The Official ScratchJr Book is the perfect companion to this free app and makes coding easy and fun for all. Kids learn to program by connecting blocks of code to make characters move, jump, dance, and sing. Each chapter includes several activities that build on one another, culminating in a fun final project. These hands-on activities help kids develop computational-thinking, problem-solving, and design skills. In each activity, you'll find: –Step-by-step, easy-to-follow directions –Ways to connect the activity with literacy and math concepts –Tips for grown-ups and teachers –Creative challenges to take the learning further By the end of the book, kids will be ready for all sorts of new programming adventures! The ScratchJr app now supports English, Spanish, Catalan, Dutch, French, Italian, and Thai.

Have you ever wondered how computers follow instructions so well? Or how they do math so quickly? In the How Do series, readers are invited to guess and then explore the science behind the right answers. Basic principles of coding, including variables, binary code, loops, programming languages, and more, are explored through diagrams, photos, and informative and engaging text.

Welcome back to the world's most whimsical way to learn about technology and coding in Hello Ruby: Expedition to the Internet, as Linda Liukas, a programming superstar, teaches kids all about the internet through storytelling and imaginative activities. What exactly is the Internet? Is it a cloud? A network of wires? How does the information travel online? Learn all this and more with Ruby! In Ruby's world anything is possible if you put your mind to it—even building the Internet out of snow! But before you can build something, you need to understand what it is and how it works. Join Ruby and her friends in their quest to build the most amazing Snow Internet ever, while learning real life facts along the way. Then, future kid coders can put their knowledge and imaginations to the test with the fun and creative exercises included in the activity book section.

Practical Programming for Total Beginners

How Children Learn Human Values through Programming

The Cambridge Handbook of Computing Education Research

Scratch 3 Programming Playground

Hello Ruby: Expedition to the Internet

Breaking the STEM Stereotype

Learn to Program with Scratch

Meet Frank Runtime. Disgraced ex-detective. Hard-boiled private eye. Search expert. When a robbery hits police headquarters, it's up to Frank Runtime and his extensive search skills to catch the culprits. In this detective story, you'll learn how to use algorithmic tools to solve the case. Runtime scours smugglers' boats with binary search, tails spies with a search tree, escapes a prison with depth-first search, and picks locks with priority queues. Joined by know-it-all rookie Officer Notation and inept tag-along Socks, he follows a series of leads in a best-first search that unravels a deep conspiracy. Each chapter introduces a thrilling twist matched with a new algorithmic concept, ending with a technical recap. Perfect for computer science students and amateur sleuths alike, The CS Detective adds an entertaining twist to learning algorithms. Follow Frank's mission and learn: – The algorithms behind best-first and depth-first search, iterative deepening, parallelizing, binary search, and more – Basic computational concepts like strings, arrays, stacks, and queues – How to adapt search algorithms to unusual data structures – The most efficient algorithms to use in a given situation, and when to apply common-sense heuristic methods

The second edition of this best-selling Python book (over 500,000 copies sold!) uses Python 3 to teach even the technically uninclined how to write programs that do in minutes what would take hours to do by hand. There is no prior programming experience required and the book is loved by liberal arts majors and geeks alike. If you've ever spent hours renaming files or updating hundreds of spreadsheet cells, you know how tedious tasks like these can be. But what if you could have your computer do them for you? In this fully revised second edition of the best-selling classic Automate the Boring Stuff with Python, you'll learn how to use Python to write programs that do in minutes what would take you hours to do by hand--no prior programming experience required. You'll learn the basics of Python and explore Python's rich library of modules for performing specific tasks, like scraping data off websites, reading PDF and Word documents, and automating clicking and typing tasks. The second edition of this international fan favorite includes a brand-new chapter on input validation, as well as tutorials on automating Gmail and Google Sheets, plus tips on automatically updating CSV files. You'll learn how to create programs that effortlessly perform useful feats of automation to:

- Search for text in a file or across multiple files
- Create, update, move, and rename files and folders
- Search the Web and download online content
- Update and format data in Excel spreadsheets of any size
- Split, merge, watermark, and encrypt PDFs
- Send email responses and text notifications
- Fill out online forms

Step-by-step instructions walk you through each program, and updated practice projects at the end of each chapter challenge you to improve those programs and use your newfound skills to automate similar tasks. Don't spend your time doing work a well-trained monkey could do. Even if you've never written a line of code, you can make your computer do the grunt work. Learn how in Automate the Boring Stuff with Python, 2nd Edition.

ScratchJr Coding CardsCreative Coding ActivitiesNo Starch Press

Coding as a Playground, Second Edition focuses on how young children (aged 7 and under) can engage in computational thinking and be taught to become computer programmers, a process that can increase both their cognitive and social-emotional skills. Learn how coding can engage children as producers—and not merely consumers—of technology in a playful way. You will come away from this groundbreaking work with an understanding of how coding promotes developmentally appropriate experiences such as problem-solving, imagination, cognitive challenges, social interactions, motor skills development, emotional exploration, and making different choices. Featuring all-new case studies, vignettes, and projects, as well as an expanded focus on teaching coding as a new literacy, this second edition helps you learn how to integrate coding into different curricular areas to promote literacy, math, science, engineering, and the arts through a project-based approach and a positive attitude to learning.

What Is Computer Coding?

Learn to Program with Small Basic

Coding with Scratch JR (Vol. 2)

Beyond Coding

25 Scratch 3 Games for Kids

A Parent-Friendly Guide to Python Programming

Super Scratch Programming Adventure! (Covers Version 2)

A project-filled introduction to coding that shows kids how to build programs by making cool games. Scratch, the colorful drag-and-drop programming language, is used by millions of first-time learners worldwide. Scratch 3 features an updated interface, new programming blocks, and the ability to run on tablets and smartphones, so you can learn how to code on the go. In Scratch 3 Programming Playground, you'll learn to code by making cool games. Get ready to destroy asteroids, shoot hoops, and slice and dice fruit! Each game includes easy-to-follow instructions with full-color images, review questions, and creative coding challenges to make the game your own. Want to add more levels or a cheat code? No problem, just write some code. You'll learn to make games like:

- Maze Runner: escape the maze!
- Snaaaaaake: gobble apples and avoid your own tail
- Asteroid Breaker: smash space rocks
- Fruit Slicer: a Fruit Ninja clone
- Brick Breaker: a remake of Breakout, the brick-breaking classic
- Platformer: a game inspired by Super Mario Bros

Learning how to program shouldn't be dry and dreary. With Scratch 3 Programming Playground, you'll make a game of it! Covers: Scratch 3

An introduction to coding for complete beginners, this friendly and accessible book will teach children the basics of Scratch (a free, online programme developed by MIT which is widely used in primary schools), allowing them to get inside the code of their computer and create simple games and animations on screen.

Millions of children and young people worldwide are using Scratch to make their own games and animations. Following on from the success of Scratch Programming in easy steps, Cool Scratch Projects in easy steps gives you great ideas to create computer games and other projects that'll impress your friends and family – and you'll have endless fun creating and playing them! The book provides step-by-step instructions for building projects that show off some of the cool things you can do with Scratch. It starts with two simple projects to get you started. Find out how to:

- Make a game with animated cartoon characters
- Build a drum machine and make random music
- Use anaglyph glasses for 3D effects and 3D Art
- Design amazing mazes in a 3D environment
- Create your own stop motion films
- Use the ScratchJr app to create games and interactive stories anywhere using your iPad or Android tablet

Cool Scratch Projects in easy steps has projects for Scratch 2.0 on a PC/Mac and Scratch 1.4 on the Raspberry Pi, and includes a Raspberry Pi Camera Module project. Each project includes suggestions for customizing it, so you can make it your own! Table of Contents: Magic Mirror Gribbet! Drum Machine 12 Angry Aliens 3D Artist Space Mine 3D Maze Maker and Circuit Breaker 3D Maze Explorer 3D Maze Explorer: Finishing touches Sprites, Cameras, Action! Super Wheelie in ScratchJr Five shorties

A perfect introduction to coding for young minds! This updated step-by-step visual guide teaches children to create their own projects using Scratch 3.0. Suitable for complete beginners, this educational book for kids gives readers a solid understanding of programming. Teach them to create their own projects from scratch, preparing them for more complex programming languages like Python. Techy kids will familiarize themselves with Scratch 3.0 using this beginner's guide to scratch coding. Difficult coding concepts become fun and easy to understand, as budding programmers build their own projects using the latest release of the world's most popular programming language for beginners. Make a Dino Dance Party or create your own electronic birthday cards for friends and family. Build games, simulations, and mind-bending graphics as you discover the awesome things computer programmers can do with Scratch 3.0. This second edition of Coding Projects in Scratch uses a visual step-by-step approach to split complicated code into manageable, easy-to-digest chunks. Even the most impressive projects become possible. This book is an impressive guide that is perfect for anyone who wants to learn to code. Follow Simple Steps, Improve Your Skills & Share Your Creations! Follow the simple steps to become an expert coder using the latest version of the popular programming language Scratch 3.0 in this new edition.

Create mind-bending illusions, crazy animations, and interactive artwork with this amazing collection of Scratch projects. Suitable for beginners and experts alike, this fabulous introduction to programming for kids has everything you need to learn how to code. You'll improve your coding skills and learn to create and customize your own projects, then you can share your games online and challenge friends and family to beat each other's scores! What's inside this kids' coding book? - Simulations, mind-benders, music, and sounds - Algorithms, virtual snow, and interactive features - Different devices, operating systems, programming languages and more Computer coding teaches kids how to think creatively, work collaboratively, and reason systematically, and is quickly becoming a necessary and sought-after skill. DK's computer coding books for kids are full of fun exercises with step-by-step guidance, making them the perfect introductory tools for building vital skills in computer programming.

Coding Projects in Scratch is one of three brilliant coding books for kids. Add Coding Games in Scratch and Coding Projects in Python to your collection.

A Step-by-Step Visual Guide to Coding Your Own Animations, Games, Simulations, and More!

An Introduction to Programming with Games, Art, Science, and Math

Teach Your Kids to Code

Creative Coding with Processing.py

Hello Ruby: Adventures in Coding

Creative Coding Activities

The Official Scratch Coding Cards (Scratch 3. 0)

The ScratchJr Coding Cards are a deck of 75 activity cards covering fun and exciting projects designed to educate young children with the visual programming language, ScratchJr. ScratchJr is a free, introductory computer programming language that runs on iPads, Android tablets, Amazon tablets, and Chromebooks. Derived from Scratch, the wildly popular programming language used by millions of kids worldwide, ScratchJr helps even younger children (5 to 7 years old) create their own playful animations, interactive stories, and dynamic games. The ScratchJr Coding Cards encourage kids to think creatively and systematically while developing computational thinking skills. Kids will learn powerful ideas about computer science by using ScratchJr programming blocks to make characters move, jump, dance, sing, and more. As they work through the deck, they will become creative thinkers and problem solvers. Written by the ScratchJr co-creator, Prof. Marina Umaschi Bers, and Dr. Amanda Sullivan, the exercises in ScratchJr Coding Cards will encourage kids to develop coding skills as well as foundational concepts for literacy, math, planning, and problem-solving, all while having fun. The cards are created using the pedagogical approach developed by Prof. Bers to teach coding in a playful way to young children.

This Handbook describes the extent and shape of computing education research today. Over fifty leading researchers from academia and industry (including Google and Microsoft) have contributed chapters that together define and expand the evidence base. The foundational chapters set the field in context, articulate expertise from key disciplines, and form a practical guide for new researchers. They address what can be learned empirically, methodologically and theoretically from each area. The topic chapters explore issues that are of current interest, why they matter, and what is already known. They include discussion of motivational context, implications for practice, and open questions which might suggest future research. The authors provide an authoritative introduction to the field and is essential reading for policy makers, as well as both new and established researchers.

Why children should be taught coding not as a technical skill but as a new literacy—a way to express themselves and engage with the world. Today, schools are introducing STEM education and robotics to children in ever-lower grades. In Beyond Coding, Marina Umaschi Bers lays out a pedagogical roadmap for teaching code that encompasses the cultivation of character along with technical knowledge and skills. Presenting code as a universal language, she shows how children discover new ways of thinking, relating, and behaving through creative coding activities. Today's children will undoubtedly have the technical knowledge to change the world. But cultivating strength of character, socioeconomic maturity, and a moral compass alongside that knowledge, says Bers, is crucial. Bers, a leading proponent of teaching computational thinking and coding as early as preschool and kindergarten, presents examples of children and teachers using the Scratch Jr. and Kibo robotics platforms to make explicit some of the positive values implicit in the process of learning computer science. If we are to do right by our children, our approach to coding must incorporate the elements of a moral education: the use of narrative to explore identity and values, the development of logical thinking to think critically and solve technical and ethical problems, and experiences in the community to enable personal relationships. Through learning the language of programming, says Bers, it is possible for diverse cultural and religious groups to find points of connection, put assumptions and stereotypes behind them, and work together toward a common goal.

An accessible, visual, and creative approach to teaching core coding concepts using Python's Processing.py, an open-source graphical development environment. This beginners book introduces non-programmers to the fundamentals of computer coding within a visual, arts-focused context. Tristan Bunn's remarkably effective teaching approach is designed to help you visualize core programming concepts while you make cool pictures, animations, and simulations using Python Mode for the open-source Processing development environment. Right from the first chapter, you'll produce and manipulate colorful drawings, shapes and patterns as Bunn walks you through a series of easy-to-follow graphical coding projects that grow increasingly complex. You'll go from drawing with code to animating a bouncing DVD screensaver and practicing data-visualization techniques. Along the way, you'll encounter creative-yet-practical skill-building challenges that relate to everything from video games, cars, and coffee, to fine art, amoebas, and Pink Floyd. As you grow more fluent in both Python and programming in general, topics shift toward the mastery of algorithmic thinking, as you explore periodic motion, Lissajous curves, and using classes to create objects. You'll learn about:

- Basic coding theories and concepts, like variables, data types, pixel coordinates, control flow and algorithms
- Writing code that produces drawings, patterns, animations, data visualizations, user interfaces, and simulations
- Using conditional statements, iteration, randomness, lists and dictionaries
- Defining functions, reducing repetition, and making your code more modular
- How to write classes, and create objects to structure code more efficiently

In addition to giving you a good grounding in general programming, the skills and knowledge you'll gain in this book are your entry point to coding for an ever-expanding horizon of creative technologies.

Learn How To Create Games And Interactive Stories

Make Your Own Scratch Games!

Reaching Girls in Early Childhood

Coding with ScratchJr

Cool Scratch Projects in easy steps

The CS Detective

The Official ScratchJr Book

Learn to make interactive games with Scratch—the beginner-friendly, block-based programming language from the MIT Media Lab! Anna Anthropy, game designer extraordinaire, will show you how to do everything from building a game map to creating animations and debugging the end product. Take a peek inside the history of video game design, learn programming basics, and turn your ideas into creative games that you can play and share with your friends. Learn how to:

- Draw characters like a hungry, leaf-eating bug
- Animate characters—make them walk, jump, climb, and fall!
- Create objects for your player to collect and obstacles to avoid
- Design multiple levels to create a cave exploring platform game
- Create sound effects and music for your games
- Share your games online and use player feedback to improve your games

Isn't it time to Make Your Own Scratch Games? The world is waiting! Covers Scratch 3.0

Scratch 3.0 has landed! Stay ahead of the curve with this fully updated guide for beginner coders. Coding is not only a highly sought-after skill in our digital world, but it also teaches kids valuable skills for life after school. This book teaches important strategies for solving problems, designing projects, and communicating ideas, all while creating games to play with their friends. Children will enjoy the step-by-step visual approach that makes even the most difficult coding concepts easy to master. They will discover the fundamentals of computer programming and learn to code through a blend of coding theory and the practical task of building computer games themselves. The reason coding theory is taught through practical tasks is so that young programmers don't just learn how computer code works - they learn why it's done that way. With Coding Games in Scratch, kids can build single and multiplayer platform games, create puzzles and memory games, race through mazes, add animation, and more. It also supports STEM education initiatives and the maker movement. Follow Simple Steps - Improve Your Skills - Share Your Games! If you like playing computer games, why not create your own? Essential coding concepts are explained using eight build-along game projects. Coding Games In Scratch guides young coders step-by-step, using visual samples, easy-to-follow instructions, and fun pixel art. This coding book for kids has everything you need to build amazing Scratch 3.0 games, including thrilling racing challenges, zany platform games, and fiendish puzzles. Follow the simple steps to become an expert coder using the latest version of the popular programming language Scratch 3.0 in this new edition. Improve your coding skills and create your own games before remixing and customizing them. Share your games online and challenge friends and family to beat each other's scores! In this book, you will: - Learn about setting the scene, what makes a good game and playability - Discover objects, rules, and goals - Explore hacks and tweaks, camera angles, fine-tuning and controls - And much more Computer coding teaches kids how to think creatively, work collaboratively, and reason systematically, and is quickly becoming a necessary and sought-after skill. DK's computer coding books for kids are full of fun exercises with step-by-step guidance, making them the perfect introductory tools for building vital skills in computer programming. Add Coding Projects in Scratch and Coding Projects in Python to your collection.

Build your own computer games with Scratch 3! Learn how to make fun games with Scratch--a free, beginner-friendly programming language from the MIT Media Lab. Create mazes, road-crossing games, and two-player games that keep score. Colorful pictures and easy-to-follow instructions show you how to add cool animations and sound effects to your games. You'll have hours of fun catching snowflakes, gobbling up tacos, and dodging donuts in space--while learning how to code along the way! Covers Scratch 3

Congratulations on introducing your child to the concepts of computer programming!Regardless of the career your child chooses in the future, knowing how to program will make all the difference. This book contains practical and entertaining exercises that you and your child will be able to do and kick start the learning of computer programing using the Scratch Jr. platform.

Learn to Program by Making Cool Games

How Do Computers Follow Instructions?

Coding to Kindness

Learn to Code and Create Your Own Cool Games!

Coding Projects in Scratch

The Ultimate Guide for Kids to Learn Computer Coding, Make Animations and Design Awesome Projects. Coding for Kids Create Your Own Video Games with Scratch.

Scratch Coding Cards

"This title shows young tech buffs and casual tech users alike that coding is doable and fun for everyone. Even the youngest computer users can get in on the fun of learning about coding!"--

Teach Your Kids to Code is a parent's and teacher's guide to teaching kids basic programming and problem solving using Python, the powerful language used in college courses and by tech companies like Google and IBM. Step-by-step explanations have kids learning computational thinking right away, while visual and game-oriented examples hold their attention. Friendly introductions to fundamental programming concepts such as variables, loops, and functions will help even the youngest programmers build the skills they need to make their own cool games and applications. Whether you've been coding for years or have never programmed anything at all, Teach Your Kids to Code will help you show your young programmer how to code geometry by drawing colorful shapes with Turtle graphics --Write programs to encode and decode messages, play Rock-Paper-Scissors, and calculate how tall someone is in Ping-Pong balls --Create fun, playable games like War, Yahtzee, and Rock-Paper-Scissors interactivity, animation, and sound to their apps Teach Your Kids to Code is the perfect companion to any introductory programming class or after-school meet-up, or simply your educational efforts at home. Spend some fun, productive after-school time with your computer with your kids--you can all learn something!

Blockly is a fun, graphical programming language designed to get kids interested in creating their own computer programs. Through simple text written to foster creativity and problem solving, students will learn the art of innovation. Large, colorful illustrations show students how to complete activities. Additional tools, including a glossary and an index, help students learn new vocabulary and locate information.

Scratch is a fun, free, beginner-friendly programming environment where you connect blocks of code to build programs. While most famously used to introduce kids to programming, Scratch can make computer science approachable for people of all ages. Rather than type countless lines of code in a cryptic programming language, why not use colorful command blocks and cartoon sprites to create powerful scripts? In Learn to Program with Scratch, author Majed Marji uses Scratch to explain the essentials of solving real-world programming problems. The labeled, color-coded blocks plainly show each logical step in a given script, and with a single click, you can even test any part of your script to check your logic. You'll learn how to: --Use the power of repeat loops and recursion --Use if/else statements and logical operators to make decisions --Store data in variables and lists to use later in your program --Read, store, and manipulate user input --Implement key computer science algorithms like linear search and bubble sort Hands-on projects will challenge you to create an Ohm's law simulator, draw intricate patterns, program sprites to mimic line-following robots, create arcade-style games, and more! Each chapter is packed with clear, step-by-step explanations, annotated illustrations, guided examples, lots of color, and plenty of exercises to help the lessons stick. Learn to Program with Scratch is the perfect place to start your computer science journey, painlessly. Uses Scratch 2.

Super Scratch Programming Adventure! (Scratch 3)

Help Your Kids Learn to Code

My First Computer Coding Book Using Scratch Jr

Packed with Flaps and Lots More to Help you Code without a Computer!

My First Coding Book

Coding for Beginners

Creative Coding Activities for Kids

Teach kids as young as 5 years old the basic programming skills necessary to code, including sequencing and loops, without a computer. It's never too early to learn computer coding. My First Coding Book is a playful introduction to offline coding and programming that will give young children a head start. Filled with puzzles, mazes, and games to teach the basic concepts of sequences, algorithms, and debugging, this book will help children develop critical thinking, logic, and other skills to cement lifelong computer literacy, which is extremely valuable and sought-after in today's world. With its unique approach and colorful and creative imagery, My First Coding Book makes learning and fun one and the same and will have children playing their way to programming proficiency. Supporting STEM education initiatives, computer coding teaches kids how to think creatively, work collaboratively, and reason systematically, and is quickly becoming a necessary and sought-after skill. DK's computer coding books are full of fun exercises with step-by-step guidance, making them the perfect introductory tools for building vital skills in computer programming.

"Code is the 21st century literacy and the need for people to speak the ABCs of Programming is imminent." --Linda Liukas Meet Ruby--a small girl with a huge imagination. In Ruby's world anything is possible if you put your mind to it. When her dad asks her to find five hidden gems Ruby is determined to solve the puzzle with the help of her new friends, including the Wise Snow Leopard, the Friendly Foxes, and the Messy Robots. As Ruby stumps around her world kids will be introduced to the basic concepts behind coding and programming through storytelling. Learn how to break big problems into small problems, repeat tasks, look for patterns, create step-by-step plans, and think outside the box. With hands-on activities included in every chapter, future coders will be thrilled to put their own imaginations to work.

Men continue to outnumber women in numerous technical STEM (Science, Technology, Engineering, and Math) fields such as, engineering and computer science. Prior work demonstrates the importance of introducing girls to STEM content early on, before gender stereotypes are ingrained. However, many parents and teachers are not sure how to do this in a developmentally appropriate and playful way. Breaking the STEM Stereotype: Reaching Girls in Childhood by Dr. Amanda Sullivan, Ph.D. explores the various social, cultural, and psychological reasons behind the persistent gender disparity between men and women in STEM fields. By explaining the powerful role of stereotypes, the media, and experiences with peers and adults during the foundational early childhood years, this book builds the case of early childhood being a critical time in development to reach girls. Breaking the STEM Stereotype is set up in three parts. Part 1 provides the current state of the gender divide in each aspect of STEM and explores why early childhood is a critical time to address this divide. Part 2 explores gender identity development and gender stereotypes as well as the influences of the media, advertising, and adult and peer role models on young children. Finally, Part 3 arms readers with the knowledge they need to dispel gender stereotypes in STEM. It provides suggestions on tools, technologies, and kits that can be used with young girls beginning in pre-kindergarten. It provides materials needed to design effective curricula and activities to engage girls with STEM in playful ways that build on their personal interests.

Learn to code and make awesome games with Scratch! Learn coding concepts and skills and start creating your own games right away! Coding for Kids: Scratch is a complete guide that makes mastering this programming language fun and easy for children (ages 6+). From sprites and code blocks to scripts and scorekeeping, Coding for Kids: Scratch helps you discover everything you need to know to create 10 amazing games that you and your friends can play. Watch your confidence grow with step-by-step instructions and clear directions that keep things simple--even as the games you're making get more challenging. Game on! Coding for Kids: Scratch includes: Coding for kids--Learn Scratch terms and concepts, then use them to build games you can start playing immediately. Create 10 games--Cake Clicker, Dino Hunt, Crystal Keeper, and more--code, play, and share 10 cool games. Master Scratch--Simple directions, full-color screenshots, and projects that get more difficult make mastering Scratch a breeze. Make coding for kids fun and games with Coding for Kids: Scratch.

Coding for Kids Scratch

DK Workbooks: Computer Coding with Scratch 3.0 Workbook

Programming and Computational Thinking in the Early Childhood Classroom

Learn Python Visually

A Step-by-Step Visual Guide to Building Your Own Computer Games

Automate the Boring Stuff with Python, 2nd Edition

Making Games

Small Basic is a free, beginner-friendly programming language created by Microsoft. Inspired by BASIC, which introduced programming to millions of first-time PC owners in the 1970s and 1980s, Small Basic is a modern language that makes coding simple and fun. Learn to Program with Small Basic introduces you to the empowering world of programming. You'll master the basics with simple activities like displaying messages and drawing colorful pictures, and then work your way up to programming games! Learn how to: --Program your computer to greet you by name --Make a game of rock-paper-scissors using If/Else statements --Create an interactive treasure map using arrays --Draw intricate geometric patterns with just a few lines of code --Simplify complex programs by breaking them into bite-sized subroutines You'll also learn to command a turtle to draw shapes, create magical moving text, solve math problems quickly, help a knight slay a dragon, and more! Each chapter ends with creative coding challenges so you can take your skills to the next level. Learn to Program with Small Basic is the perfect place to start your computer science journey.

A collection of ten themed activity card sets that introduces children to computer programming fundamentals using Scratch, a visual programming language developed by the Lifelong Kindergarten Group at the MIT Media Lab.

Get kids building their own computer games in no time with DK Workbooks: Coding in Scratch: Games Workbook. Computer coding is quickly becoming a necessary and sought-after skill and many schools have incorporated it into their curriculum, beginning as early as kindergarten to ensure students understand the languages and uses of computer coding. This workbook is full of fun exercises and step-by-step guidance, making it the perfect introductory practice book to build vital skills in one of the fastest growing industries. Designed to support the Common Core State Standards, the DK Workbook series is developed with leading educational experts to build confidence and understanding. Each leveled workbook, for children ages 3 through 9, is packed with activities and challenges, offering the beneficial repetition and cumulative learning that lead to mastery. Children will learn about the history of programming, what coding is, arcade game design, and game development. Fact boxes on each page give a simple overview of the topics being covered, helping children get their bearings, review the basics, and often see an example of the task at hand.

Do you want to learn a new and valuable skill that will help you become more tech-savvy? If yes, you might find coding to be particularly appealing as it has a bit of everything for everyone, involving creativity, logic, art, math, architecture, and problem-solving through the use of computer software. This book teaches you to code step by step through existing programming languages that you can try with your family and friends, which include multiple activities, ranging from games and drills to useful exercises. Most kids would like to learn to code, but not every kid at school or in summer-camp has access to computer programming lessons. That's where this book comes in! Using "Scratch," a computer programming language, children can learn all the basics of coding and become more technically skilled. As a block-based visual language, new coders can enter into the realm of programming with ease - and it's fun too! Developed at MIT, Scratch has grown in popularity because it is currently the most common programming language that is accessible to children. As such, this book introduces the most recent edition of Scratch, Scratch 3.0.0, and includes various projects. Thus, everything that kids learn from this book will help them acquire new skills and study more technical programming languages in the future. Best of all, the resources are downloadable, accessible online, and easy-to-use through the instructions included in this book. This book covers the following: The Basics of Coding Working with Programming Languages Exception Handling Event-Driven Programming Algorithms for Cloning Simple Loops and Code Blocks (Functions) Variables and their Use I/O and Data Handling Conditionals Lists, Arrays, and Logical Functions Introduction to App Lab and Scratch All this information will help you teach your kids coding, as is presented in this single book. If this sounds like something you want for your kids, go ahead and "Click the Buy Button" to get your own copy!

Microsoft Office 2019 for Kids

Coding for Beginners - Using Scratch (for tablet devices)

Coding With Blockly

Coding as a Playground

ScratchJr Coding Cards

Learn to Program by Making Cool Games (Covers Version 2)

Scratch is the wildly popular educational programming language used by millions of first-time learners in classrooms and homes worldwide. By dragging together colorful blocks of code, kids can learn computer programming concepts and make cool games and animations. The latest version, Scratch 2, brings the language right into your web browser, with no need to download software. In Super Scratch Programming Adventure!, kids learn programming fundamentals as they make their very own playable video games. They'll create projects inspired by classic arcade games that can be programmed (and played!) in an afternoon. Patient, step-by-step explanations of the code and fun programming challenges will have kids creating their own games in no time. This full-color comic book makes programming concepts like variables, flow control, and subroutines effortless to absorb. Packed with ideas for games that kids will be proud to show off, Super Scratch Programming Adventure! is the perfect first step for the budding programmer. Now Updated for Scratch 2 The free Super Scratch Educator's Guide provides commentary and advice on the book's games suitable for teachers and parents. For Ages 8 and Up This fun, friendly guide explains how computers work and what coding does - then shows you how to code your own stories and games on a tablet. The coding uses ScratchJr, a computer language designed especially for beginners, which is available to download for free. A perfect first introduction to computer coding. Entertaining projects with simple, step-by-step instructions. Includes helpful notes for grown-ups.

Do you enjoy coding with Scratch? Using the new sprites, you can now code and create projects with this Scratch 3.0 programming workbook.

Teach kids the concepts of coding in easy-to-understand language and help them develop games of their own with The Everything Kids' Scratch Coding Book! Understanding computer science is becoming a necessity in the modern age. As our world shifts towards becoming increasingly more technical and automated, the ability to code and understand computers has become one of the most valuable skills any child can have on the road to a successful life. More and more schools are recognizing this importance and have started to implement computer science and coding as core elements in their curriculums, right alongside math and history.

The Everything Kids' Scratch Coding Book helps children get a head start on this new essential skill, with Scratch coding--a language designed by MIT specifically to help a younger audience learn to code. In no time, children will learn basic coding concepts, build fun games, and get a competitive edge on their classmates. This book encourages children to think analytically and problem-solve, while helping them develop an essential skill that will last them a lifetime.

Scratch: Learn Coding Skills, Create 10 Fun Games, and Master Scratch

Coding for Kids

DK Workbooks: Coding in Scratch: Games Workbook

The Everything Kids' Scratch Coding Book

Coding Games in Scratch

A Visual Introduction to Programming with Games, Art, Science, and Math

A Playful Guide to Coding

Comics! Games! Programming! Now updated to cover Scratch 3. Scratch is the wildly popular educational programming language used by millions of first-time learners in classrooms and homes worldwide. By dragging together colorful blocks of code, kids can learn computer programming concepts and make cool games and animations. The latest version, Scratch 3, features an updated interface, new sprites and programming blocks, and extensions that let you program things like the micro:bit. In Super Scratch Programming Adventure!, kids learn programming fundamentals as they make their very own playable video games. They'll create projects inspired by classic arcade games that can be programmed (and played!) in an afternoon. Patient, step-by-step explanations of the code and fun programming challenges will have kids creating their own games in no time. This full-color comic book makes programming concepts like variables, flow control, and subroutines effortless to absorb. Packed with ideas for games that kids will be proud to show off, Super Scratch Programming Adventure! is the perfect first step for the budding programmer. Covers Scratch 3

Meet Grace, Dorothy, and Ada, all named after pioneer women in Computer Science. They are best friends, but need your help at times to remember to be kind to one another. Throughout this book you will have opportunities to CODE to

KINDNESS by sequencing the directional cards (forward, backward, left, right).

A 34-week course that teaches elementary and middle school kids computer application productivity skills. It can be used in the classroom or at home. Step-by-step instructions and illustrations for each of the 33 projects are provided, along with 1 day of practice after each lesson.

An Algorithmic Tale of Crime, Conspiracy, and Computation