Book Series on

Learning Computer Programming and CS Principles

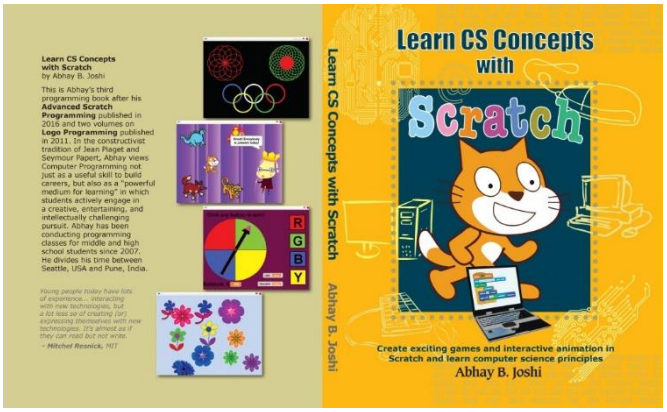
There are probably thousands of books on computer programming and computer science, with more coming out every month. This new distinguished series of books stands apart from these other books in many ways. First, this series makes it possible to start learning programming in late primary or early middle school. Second, these books are created by CS teachers with extensive experience both in the software field and in teaching young students. Finally, this book series has the following learning objectives:

- The learning process should be fun and entertaining and it should encourage creativity
- The learning of concepts must be gradual and application-oriented, i.e. students must see the relevance
- The focus of learning should be on developing:
    - computational thinking
    - problem-solving skills
    - program design skills

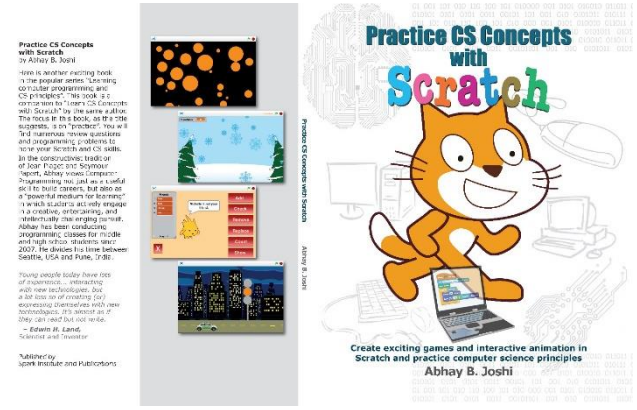
Expert Scratch Programmer Book Set:

The series begins with one of the most friendly and popular languages – Scratch. We have 4 books on Scratch programming as shown below. These books take you from the very basics all the way to creating challenging and complex projects. In short, these 4 books are sufficient for you to become an expert Scratch Programmer!

Books 1 and 2: Learn and Practice CS Concepts with Scratch



See http://www.abhayjoshi.net/spark/scratch/bscratch.pdf for details



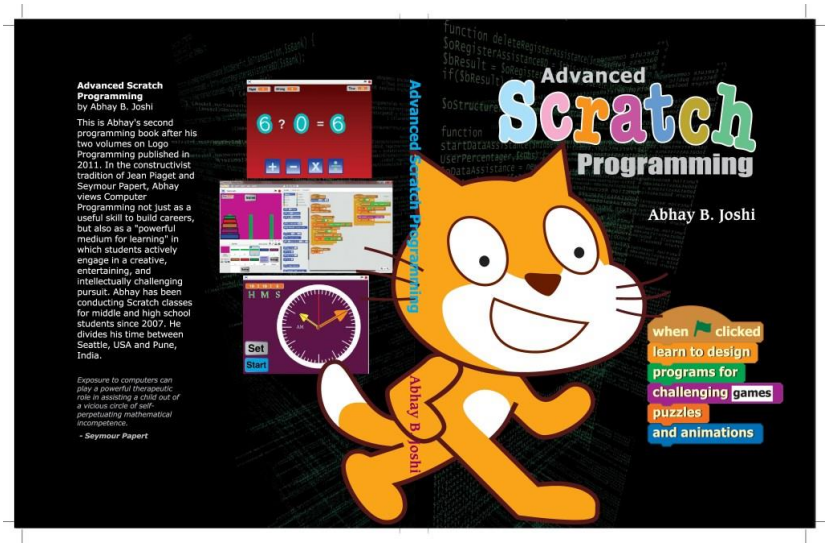
See http://www.abhayjoshi.net/spark/scratch/bscratchs.pdf for details

Who these books are for:

"Learn CS Concepts with Scratch" is perfect for students who are keen to learn CS concepts and have no prior programming background. In addition to learning a lot of Computer Science concepts, you will do a series of interesting projects and programming activities. You will work on a few big projects, and you will also write many small "practice programs". You will learn and apply concepts of computer programming and computer science when you write these programs.

The second book "Practice CS" is a supplement and it provides additional review questions to evaluate your understanding of CS concepts, and additional programming assignments to practice all these concepts. The book is perfect for practicing your skills on a variety of interesting problems.

Book 3: Advanced Scratch Programming

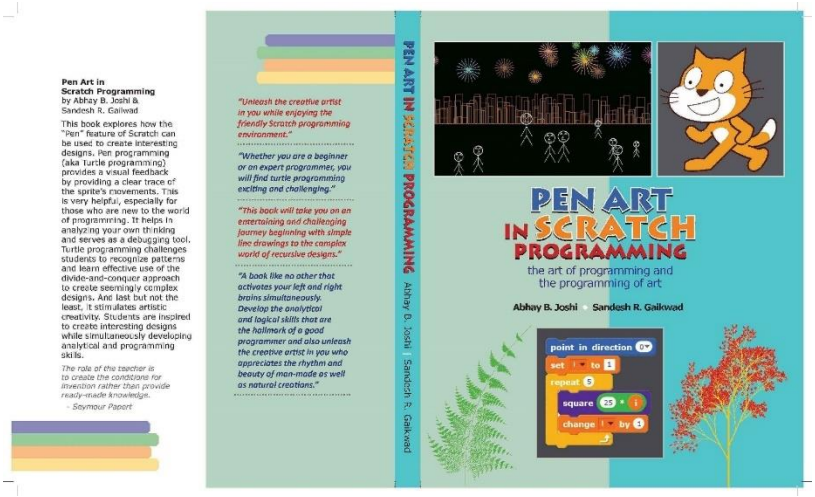


See http://www.abhayjoshi.net/spark/scratch/ascratch.pdf for more details

Who this book is for:

This book is for students who are already familiar with Scratch: its various commands, its user interface, and how it represents a variety of CS concepts such as, variables, conditional statements, looping, and so on. The book does not attempt to teach these concepts, but, it does provide a quick introduction to each concept in a freely downloadable supplement. The book is organized as a series of independent Scratch projects – each of which describes how to design and build an interesting and challenging Scratch program.

Book 4: Pen Art in Scratch Programming



See http://www.abhayjoshi.net/spark/scratch/pscratch.pdf for more details

Who this book is for:

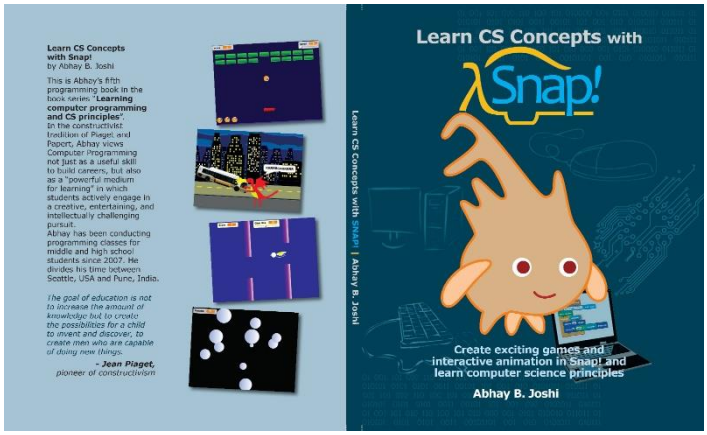
"Pen Art in Scratch Programming" is a new exciting interactive book for middle- and high-school students and for beginner CS college students. This book focuses on the “Pen” feature of the popular Scratch programming language and takes you on a tour of exciting geometric designs, curves, recursive patterns, trees, and so on.

It is assumed that the reader is familiar with the basic features of Scratch, such as, motion commands and looping. However, as you will discover, you can become an accomplished “Pen Artist” (or “Turtle Programmer”) without having to be an expert Scratch programmer.

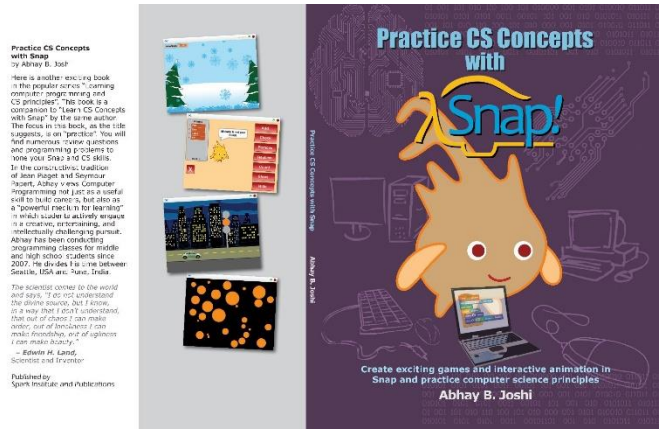
Expert Snap Programmer Book Set:

The series continues with another friendly and popular language – Snap. We have 4 books on Snap programming as shown below. These books take you from the very basics all the way to creating challenging and complex projects. In short, these 4 books are sufficient for you to become an expert Snap Programmer!

Books 1 and 2: Learn and Practice CS Concepts with Snap!



See http://www.abhayjoshi.net/spark/snap/bsnap.pdf for more details



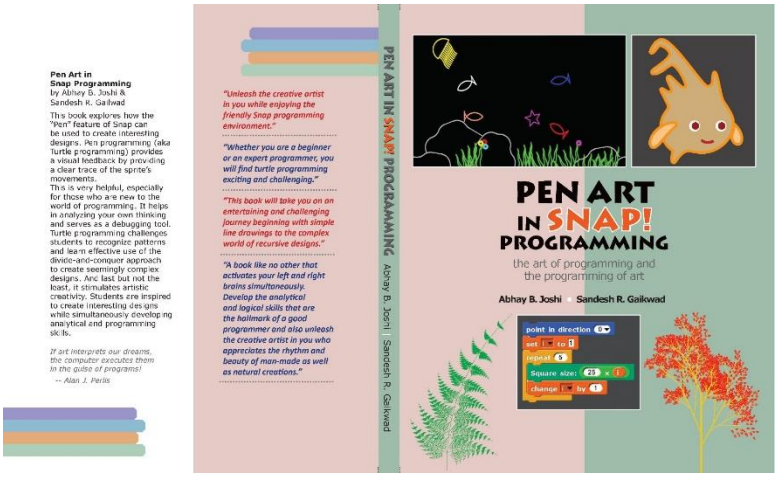
See http://www.abhayjoshi.net/spark/snap/bsnaps.pdf for more details

Who these books are for:

"Learn CS Concepts with Snap" is perfect for students who are keen to learn CS concepts with Snap. In addition to learning a lot of Computer Science concepts, you will do a series of interesting projects and programming activities. You will work on a few big projects, and you will also write many small "practice programs". You will learn and apply concepts of computer programming and computer science when you write these programs.

The second book "Practice CS" is a supplement and it provides additional review questions to evaluate your understanding of CS concepts, and additional programming assignments to practice all these concepts. The book is perfect for practicing your skills on a variety of interesting problems.

Book 3: Pen Art in Snap! Programming



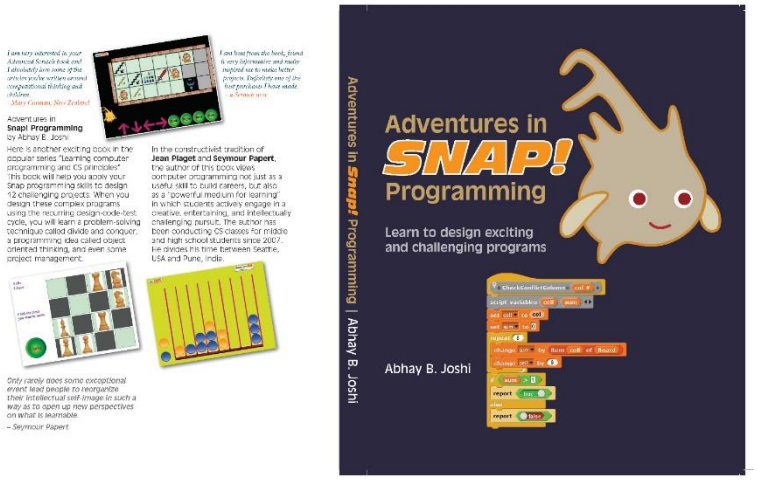
See http://www.abhayjoshi.net/spark/snap/psnap.pdf for more details

Who this book is for:

"Pen Art in Snap Programming" is a new exciting book for middle- and high-school students and for beginner CS college students. This book focuses on the “Pen” feature of the popular Snap programming language and takes you on a tour of exciting geometric designs, curves, recursive patterns, trees, and so on.

It is assumed that the reader is familiar with the basic features of Snap, such as, motion commands and looping. We highly recommend the book “Learn CS Concepts with Snap” in this book series, if you are a complete newcomer to Snap, or if you wish to brush up on your concepts. However, as you will discover, you can become an accomplished “Pen Artist” (or “Turtle Programmer”) without having to be an expert Snap programmer. The book explains relevant Snap commands and concepts wherever required.

Book 4: Adventures in Snap! Programming



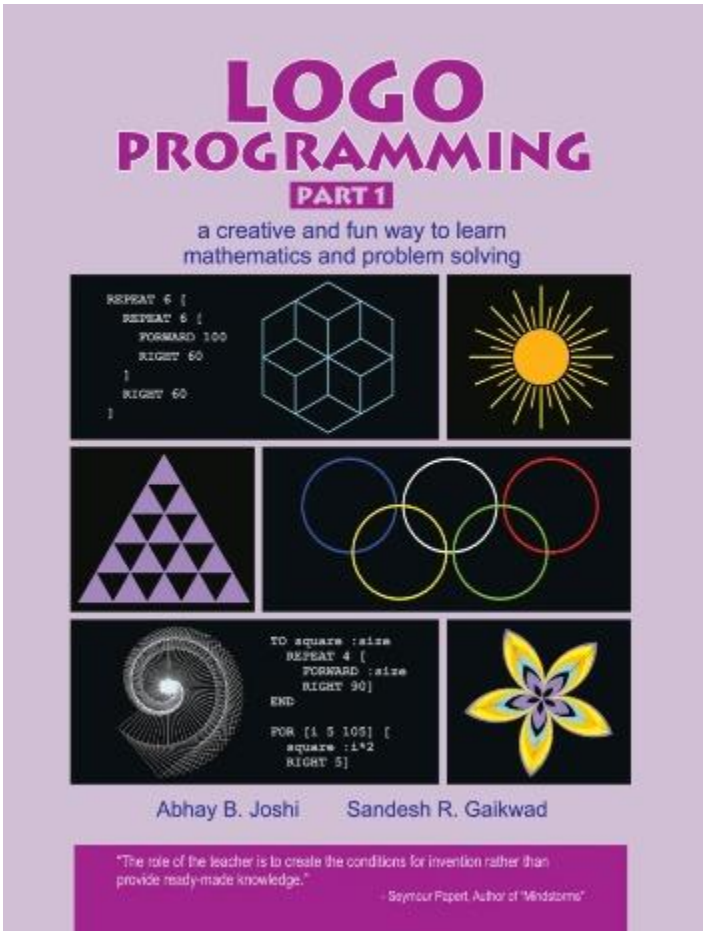
See http://www.abhayjoshi.net/spark/snap/asnap.pdf for more details

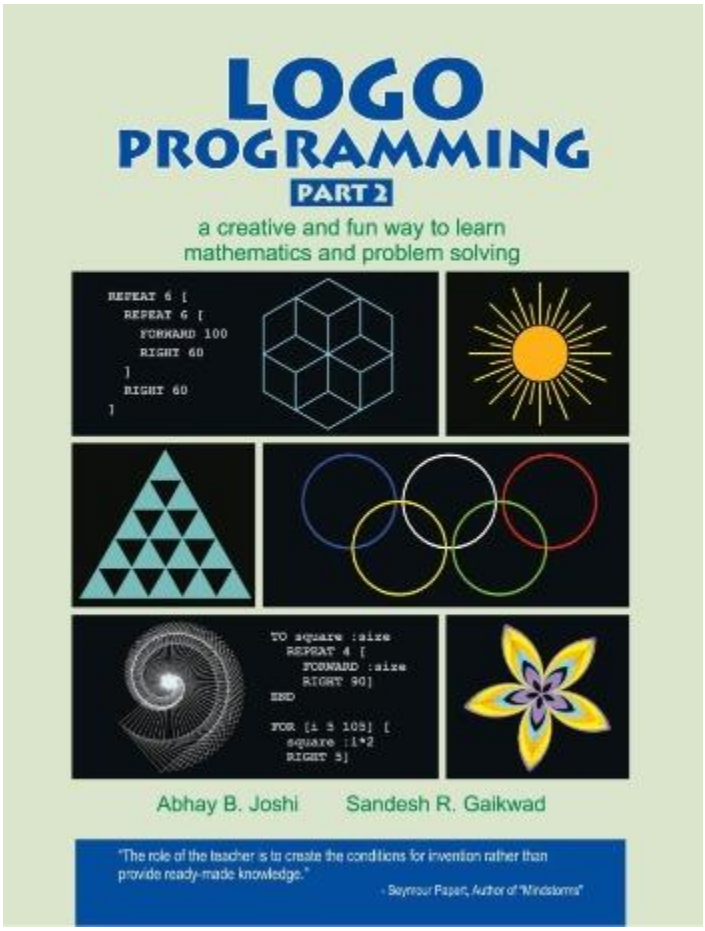
Who this book is for:

This book is for students who are already familiar with Snap: its various commands, its user interface, and how it represents a variety of CS concepts such as, variables, conditional statements, looping, and so on. The book is organized as a series of independent projects – each of which describes how to design and build an interesting and challenging program.

Logo Programming Book Set:

Logo is the granddaddy of all languages that purport to teach computational thinking. These books focus on the Turtle geometry feature of Logo and take you on a tour of geometric patterns, curves, recursive designs, trees, and so son.





See http://www.abhayjoshi.net/spark/logo/logo_book.pdf for more details