A Book List

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All books on this list deal with languages that you can run on your computer for FREE! The first three sections are languages we will deal with in class.

1 The Scratch Language

"Learn to Program with Scratch: A Visual Introduction to Programming with Games, Art, Science, and Math"
by Majed Marji
No Starch Press
Description: A great Scratch book. Learn by doing.

"Super Scratch Programming Adventure! (Covers Version 2): Learn to Program by Making Cool Games"
by The LEAD Project
No Starch Press
Description: A great Scratch book from the Scratch people.

2 The NetLogo Language

"Adventures in Modeling: Exploring Complex, Dynamic Systems with StarLogo"
by Venessa Colella et al.
Teachers College Press
Description: This book is a teacher's guide and a student workbook for using Starlogo. Most of its content is available on-line. Starlogo is a precursor to NetLogo.

"Turtles, Termites, and Traffic Jams: Explorations in Massively Parallel Microworlds"
by Mitchel Resnick
Bradford Books
Description: By the educator Resnick, this books has lots of ideas for what can be done with a language like NetLogo although the book predates NetLogo, it deals with the precursor language Starlogo.

3 The Processing Language

"Processing: A Programming Handbook for Visual Designers and Artists"
by Casey Reas and Ben Fry
MIT Press

Description: A great way to learn all the details of the Processing Language. Very easy to read and entertaining. Not really a book about how to program but more about how to use Processing.

4 Books on Learning to Program or CS

"How to Design Programs: An Introduction to Programming and Computing"
by Matthias Felleisen et al.
MIT Press
Description: Great gentle introduction to programming. Uses the Scheme language which is a type of LISP language to teach computing concepts. Super readable and clear.

"The Computational Beauty of Nature: Computer Explorations of Fractals, Chaos, Complex Systems and Adaptation"
by Gary William Flake
MIT Press
Description: A look at using some great mathematical ideas from a computational aspect. This is a book for those with a knack for math and probably a few college level math courses.

"A Balanced Introduction to Computer Science"
by David Reed
Princeton
Description: This over-priced book uses the approach of teaching Javascript to make active web pages as a way to learn about programming. An interesting approach. Also includes basics of hardware.

"Python Programming: An Introduction to Computer Science"
by John Zelle
Franklin, Beedle & Associates Inc.
Description: This is an introduction to computer science using the popular Python programming language. Very readable introduction to programming. Python is a popular language in many STEM fields.

"Learning to Program with Alice"
by Wanda Dann et al.
Pearson
Description: Alice is a language that lets beginners learn to program in a visual way using a metaphor of making a movie. It is a bit restricted but a good way to get started without knowing you are getting started. This book comes recommended from someone I know who has taught Alice as a first language.

5 More Great Books on Computer Languages and Examples

"The Nature of Code: Simulating Natural Systems with Processing"
by Daniel Shiffman
Description: How to do some great little simulations of natural processes from physical systems to evolution. Lots of good stuff. Code is available online and so is the book for a donation.

"The Quick Python Book"
by Vernon Ceder
Manning
Description: A very easy to read book on the Python Language. If you want to add the Python Langueage to your list of languages, this is the place to start.