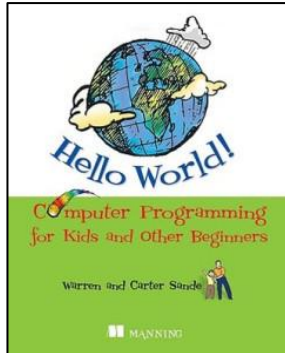# Computer Science Reading List

Hello World! Computer Programming for Kids and Other Beginners
by Warren Sande, Carter Sande

Learn to talk to your computer in its own language! Whether you want to create a game, start a business, or solve an important problem, the first step is learning to write your own programs. This book is written as perfect introduction for our Key Stage 3 students.
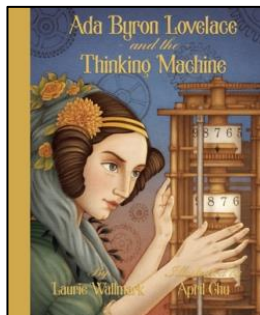
Ada Byron Lovelace and the Thinking Machine by Laurie Wallmark

Ada Lovelace, the daughter of the famous romantic poet, Lord Byron, develops her creativity through science and math, becoming the woman who would write the world's first computer program. A great story regarding one of the world's first pioneers of Computer Science.

Codecrafter by Erica Sandbothe

Tagg has come to Tilde for one reason: to become a Codecrafter, a sorcerer who can forge her own magic spells. Codecrafter is set in a world where spells are software, magic is programmed, and one girl must use all of her skills to outwit an enemy bent on her destruction. A great ready for our Year 7 students.
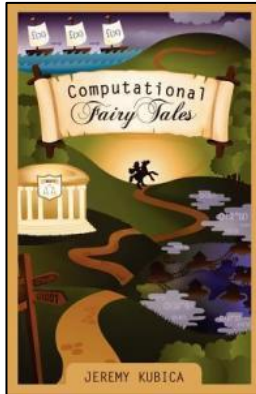
Computational Fairy Tales by Jeremy Kubica

Have you ever thought that computer science should include more dragons and wizards? Computational Fairy Tales introduces principles of computational thinking, illustrating high-level computer science concepts, the motivation behind them, and their application in a non-computer-fairy tale-domain. Another excellent read for our Key Stage 3 students.
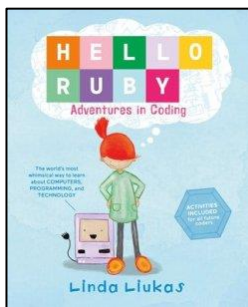
Hello Ruby: Adventures in Coding by Linda Liukas

Hello Ruby is the world's most whimsical way to learn about computers, technology and programming. The story started with a book, and now Ruby continues her adventures in exercises, activities and videos. A great read for our new Year 7 students.
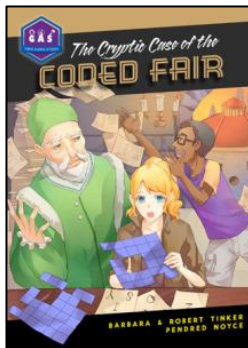
The Cryptic Case of the Coded Fair by Barbara Tinker, Robert Tinker, Pendred Noyce

With time travel and mysteries that need solving, the Galactic Academy of Science (G.A.S.) series instructs readers on how to think like scientists. An excellent cipher introduction for Key Stage 3.
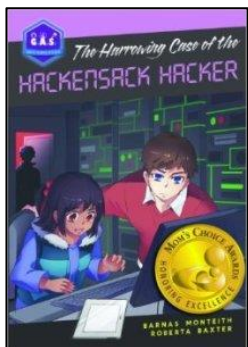
The Harrowing Case of the Hackensack Hacker by Roberta Baxter, Barnas Moneith

With time travel and mysteries that need solving, the Galactic Academy of Science (G.A.S.) series instructs readers on how to think like scientists. A great read for all Key Stage students
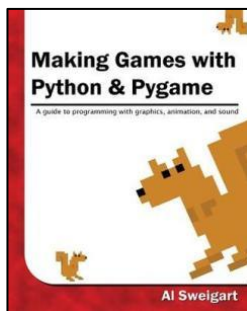
Making Games with Python & Pygame by Al Sweigart

Once you have an understanding of the basics of Python programming, you can now expand your abilities using the Pygame library to make games with graphics, animation, and sound. Excellent stretch for our Key Stage 4 and 5 students.

Scratch 2.0 Programming by Denis Golikov

An introduction into the computer programming application that allows children 10 and up to express themselves creatively by developing their own stories, cartoons, games, and more—all while learning computer programming! Excellent introduction for our Year 7 students.

Super Scratch Programming Adventure!: Learn to Program By Making Cool Games by The LEAD Project

Another excellent development book for the Scratch programming language. This book will support our Year 9 students who are studying Scratch in their classroom curriculum.
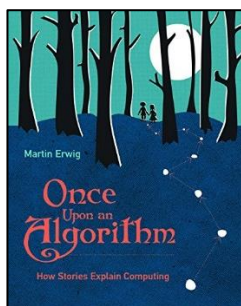
Once Upon an Algorithm: How Stories Explain Computing by Martin Erwig

How Hansel and Gretel, Sherlock Holmes, the movie Groundhog Day, Harry Potter, and other familiar stories illustrate the concepts of computing. A great link for Key Stage 3 students.
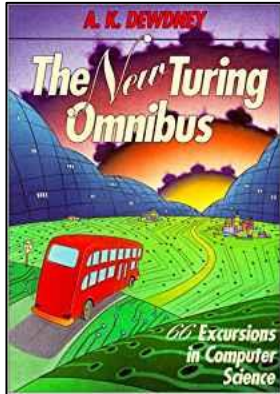
The New Turing Omnibus: 66 Excursions in Computer Science (New Turning Omnibus : 66 Excursions in Computer Science) by A K Dewdney

No other volume provides as broad, as thorough, or as accessible an introduction to the realm of computer science as A. K. Dewdney's The Turing Omnibus. Excellent reading for all year groups.
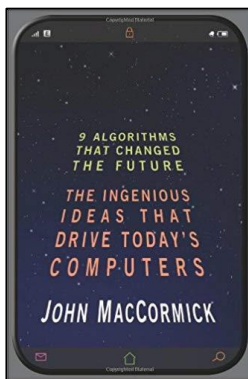
Nine Algorithms That Changed the Future: The Ingenious Ideas That Drive Today's Computers by John MacCormick

Every day, we use our computers to perform remarkable feats. A simple web search picks out a handful of relevant needles from the world's biggest haystack: the billions of pages on the World Wide Web. Excellent reading for our Key Stage 4 and 5 students.
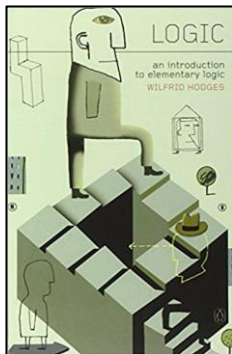
Logic by Wilfird Hodges

Wilfrid Hodges takes the reader through the whole gamut of logical expressions in a simple and lively way. An excellent book to support Key Stage 4 and 5 students and their understanding of logic.
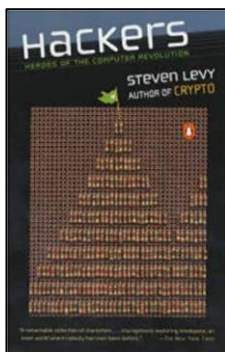
Hackers: Heroes of the Computer Revolution by Steven Levy

Hackers is a fascinating story that begins in early computer research labs and leads to the first home computers. An exciting read for any enthusiastic Computer Science student.
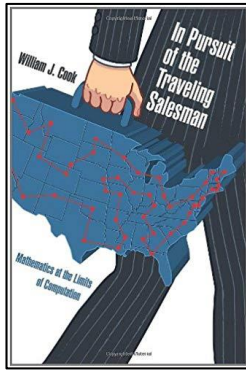
In Pursuit of the Traveling Salesman: Mathematics at the Limits of Computation by William J Cook

What is the shortest possible route for a traveling salesman seeking to visit each city on a list exactly once and return to his city of origin? Excellent extra-curricular reading for Key Stage 4 and 5 students.
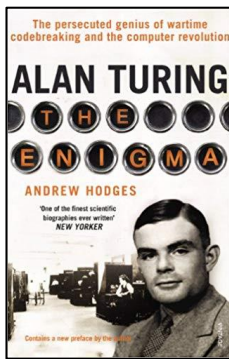
Alan Turing: The Enigma by Andrew Hodges

Alan Turing was the mathematician whose cipher-cracking transformed the Second World War. An excellent read for any student studying Key Stage 4 or 5 Computer Science.
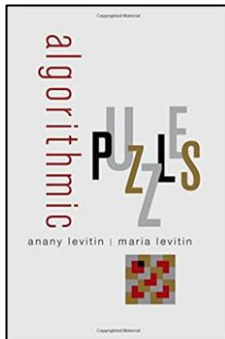
Algorithmic Puzzles by Anany Levitin

While many think of algorithms as specific to computer science, at its core algorithmic thinking is defined by the use of analytical logic to solve problems. A great way to enhance and practice your logical thinking skills.
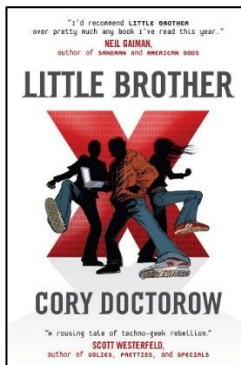
Little Brother by Cory Doctorow

The ultimate tale of teen rebellion – one seventeen-year-old against the surveillance state. A relevant read for our 6th form students.