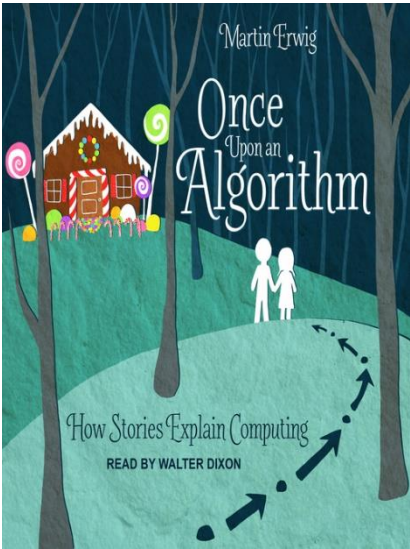


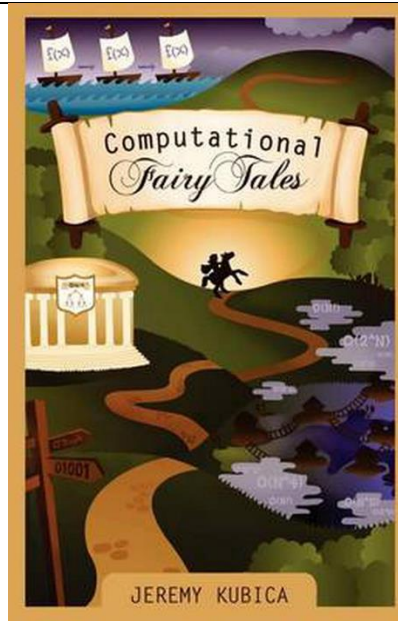
Computing Reading List



MARICOURT
CATHOLIC
HIGH SCHOOL
& SIXTH FORM CENTRE

Book selection

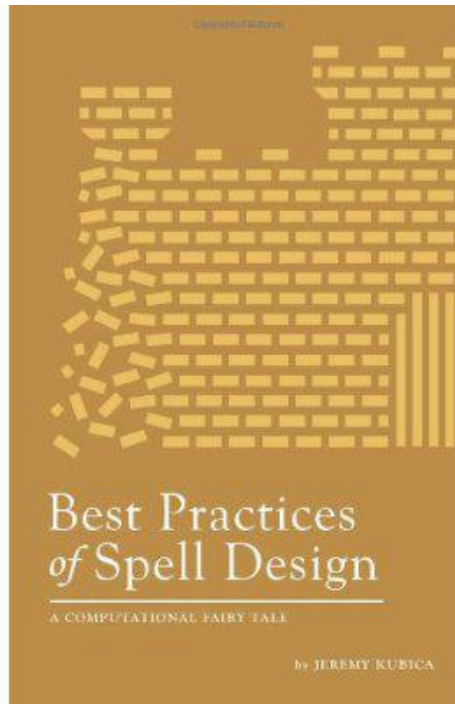
Wider Reading Book Recommendations	
Year 7 -9	<p>Once Upon an Algorithm</p> <p>How Hansel and Gretel, Sherlock Holmes, the movie Groundhog Day, Harry Potter, and other familiar stories illustrate the concepts of computing. Picture a computer scientist, staring at a screen and clicking away frantically on a keyboard, hacking into a system, or perhaps developing an app. Now delete that picture. In <i>Once Upon an Algorithm</i>, Martin Erwig explains computation as something that takes place beyond electronic computers, and computer science as the study of systematic problem solving.</p> 
Year 7 -9	<p>Computational Fairy Tales</p> <p>Have you ever thought that computer science should include more dragons and wizards? <i>Computational Fairy Tales</i> 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. The goal of this book is not to provide comprehensive coverage of each topic, but rather to provide a high level overview of the breadth and excitement of computer science. It's a quest that will take you from learning the basics of programming in a blacksmith's forge to fighting curses with recursion.</p>



Year 10 - 11

Best Practices of Spell Design

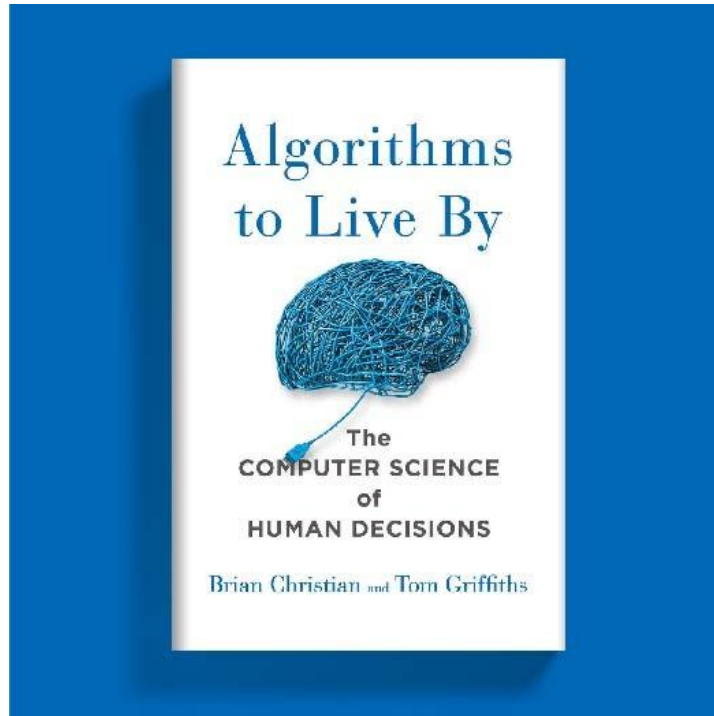
A tale of programming and software best practices from the Computational Fairy Tales universe. In all his years as a wizard, Marcus has never seen a spell cause this much damage. When Hannaldous's sloppy attempt at a shield spell accidentally curses the castle, the walls start crumbling at an alarming rate. Now Marcus and his apprentice Shelly must figure out how to repair the damage before the castle turns to dust. Along the way they will encounter gossiping worms, perfectionist bakers, opportunistic rabbits, and copious amounts of mold.



Year 10 - 11

Algorithms to Live By: The Computer Science of Human Decisions

In a dazzlingly interdisciplinary work, Brian Christian and Tom Griffiths show how algorithms developed for computers also untangle very human questions. They explain how to have better hunches and when to leave things to chance, how to deal with overwhelming choices and how best to connect with others.

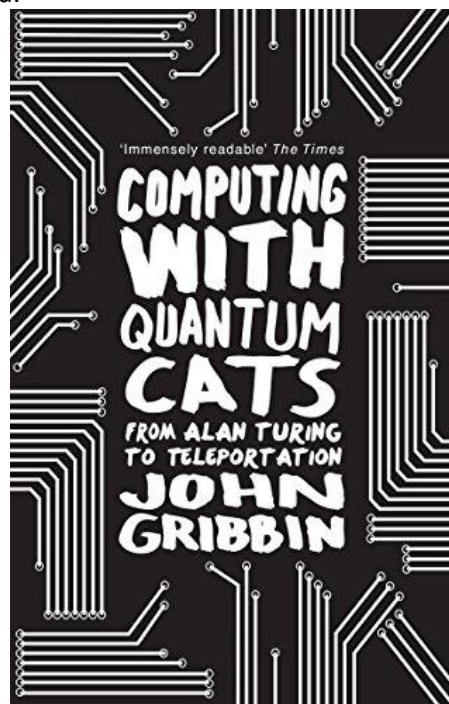


Sixth Form

Computing with Quantum Cats: From Alan Turing to Teleportation: From Colossus to Qubits

Pioneering study of the science behind quantum computing and what the new quantum reality will mean for mankind.

The quantum computer is no longer the stuff of science fiction. Pioneering physicists are on the brink of unlocking a new quantum universe which provides a better representation of reality than our everyday experiences and common sense ever could. The birth of quantum computers -- which, like Schrödinger's famous 'dead and alive' cat, rely on entities like electrons, photons or atoms existing in two states at the same time -- is set to turn the computing world on its head.



Sixth Form

The Code Book: The Secret History of Codes and Code-breaking

The Code Book is a history of man's urge to uncover the secrets of codes, from Egyptian puzzles to modern day computer encryptions.

As in Fermat's Last Theorem, Simon Singh brings life to an astonishing story of puzzles, codes, languages and riddles that reveals man's continual pursuit to disguise and uncover, and to work out the secret languages of others.

