



A level Computer Science- Transition Work

Welcome to Computer Science at Ribston Hall High School. We look forward to teaching you.

You should complete the tasks below by the time you start with us. I estimate you should be able to complete this by in 2 hours a day for a week. It may be that you have decided to join us or to take Computer Science not long before the start of year 12.

We will start with programming in Python, so it is essential that you have some familiarity with Python and the concepts behind programming.

Python programming

Mission encodable is a platform created by two teenagers to teach coding. You can access it by searching for Mission encodable or using this link <https://missionencodeable.com/get-started> .

If you have no programming experience, start at Level 1 and work up to Level 4.

If you have some programming experience, I would like you to work up to Level 6 (you will know where you want to start).

In both cases, feel free to do more levels !

Programming Theory

The platform we use for this is [Isaac Computer Science](https://isaacomputerscience.org). Please create a login here (use your Ribston email if you have one, if not use a personal email) and join the group for your class by this using the following link <https://isaacomputerscience.org/account?authToken=MWZBHC>.

If you already have an Isaac Computer Science account ,please add the class code **KQRU8E** to your profile.

I have set you a gameboard on programming concepts to complete. You can access these in My Isaac -> My Tests. You may wish to use the appropriate section of Isaac Computer Science to help you. I can view your progress on the website. Do let me know if you have questions (my email address is below)

Have a great summer !

Mrs Coverdale

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Other optional activities you might enjoy

Watching

'*Hidden Figures*' - The story of a team of female African-American mathematicians who served a vital role in NASA during the early years of the U.S. space program.

'*The Imitation game*' - During World War II, the English mathematical genius Alan Turing tries to crack the German Enigma code with help from fellow mathematicians while attempting to come to terms with his troubled private life.

Listening

Darknet Diaries podcast. Explore true stories of the dark side of the Internet with host Jack Rhysider as he takes you on a journey through the chilling world of hacking, data breaches, and cyber crime.

Reading

- *The Most Complex Machine* by David Eck
 - A great book for A Level, supported by a wonderful website with lots of interactive labs.
- *Computational Fairy Tales* by Jeremy Kubica
 - This book introduces dozens of aspects of computational design. It gives an overview of these aspects, whetting the appetite to learn more. Using analogies from fairy tales, Mr. Kubica inspires readers to take in each concept and then extend their learning on their own.
- *Hackers* by Steven Levy
 - This book traces the history of Hackers, from clunky computer card punching machines to the inner secrets of what would become the internet. With groundbreaking profiles of Bill Gates, Steve Wozniak, MIT railroad club and more; the shapers of the digital revolution.
- Cybersecurity

