



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 1- 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

Please get familiar with the Python concepts of input, output, variables, selection (if) and iteration (loops). There are many different websites and apps you can use for this.

Option 1 – I've haven't coded (in Python) before.

GoCodeIt is a popular platform for learning Python and requires no login. Scan the QR code on the right or search for **GoCodeIt** then select **Python Step By Step From GoCodeIt**. Complete the first 4 units.



Option 2 – I am a pretty good programmer !

Scan the QR code on the left or search **101 Computing** and go to **Code** then **Python Challenges**. These are grouped into beginner, intermediate and advanced level, choose the ones that suit you.

Programming Theory

Ada Computer Science platform is great for supporting your learning.

1. Create a login on the platform using the QR code on the right
 - a. Link your account to the class by adding the class code **DTQE9H** if needed.
 - b. Use your Ribston email if you have one, if not use a personal email.
2. I have set you a 5 question quiz programming concepts. Those who get 100% get a prize in the first lesson.



Have a great summer ! Any questions please email me.

Mrs Coverdale

klc@ribstonhall.gloucs.sch.uk



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 ground-breaking profiles of Bill Gates, Steve Wozniak, MIT railroad club and more; the shapers of the digital revolution.
- Cybersecurity

