A level Computer Science- Transition Work

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

Completion of the transition work is essential to achieving your desired grade and so continuing your life journey, whatever path you choose. The aim of the transition work is to ensure you have grounding in key computing concepts so we can build on those during the course, especially if you have not done GSCE Computer Science. You should complete the tasks below by the time you start with us.

Theory

The platform we use for this is Isaac Computer Science. Please create a login here (use your school 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://isaaccomputerscience.org/account?authToken=MWZBHC.

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

I have set you some gameboards to complete to refresh your knowledge or provide a strong foundation for your A- level learning.   You can access these in My Isaac -> My Tests.   Please work through these. 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)

Programming practice with Turing labs

The majority of our sample code is done in Python. To practice (or learn) programming and consolidate the theory behind it, please complete some online visual Python programming on the Turing Labs website.

1. Go to this website
2. Choose 'I am a leaner in a class' and enter the Class code **VYNOAK**
3. Complete the Smart Cities course.
   - If you find the concepts in Smart Cities challenging, complete FarmBot first

You may also wish to complete the Chatbot course, which includes more advanced content.

Have a great summer !

Mrs Coverdale and Mr Storey

klc@ribstonhall.gloucs.sch.uk

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.

Reading

Not required, however, some books you might enjoy.

- *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