

Bridging Materials, Computer Science 2023

Coding. Coding. Coding. The more you can do, the better. This is a perfect opportunity to spend some time developing your coding skills. I do not mind which programming languages you choose to learn, as essentially, the underlying logic is the same for all of them. There are a number of links and resources for you [here](#).

For the A-Level course we will use a combination of programming languages but predominantly the course will be delivered in Python and one of the course exams will require you to produce functional code in Python. There are a number of useful resources available online such as:

- www.codecademy.com
- www.sololearn.com
- <https://www.w3schools.com>

These will also reinforce the core principles of programming.

If you are competent in several languages, or want to develop those crucial problem-solving skills, then a good place to start is CoderByte.com. This site sets graded coding challenges in a range of programming areas, all of which are at an appropriate level for pre-A level and full A-level, but require you to use one of their built in programming languages (Python, JavaScript, C etc.).

Have a go at the challenges set in Project Euler. These are entirely mathematical/numerical, graded, and vary from easy (can be solved purely by maths or “brute force” programming) to very difficult indeed (university level, requires both programming and maths). There are however, more than enough of the easier challenges to get you started!

Enjoy! Do not forget that success at something like the Project Euler challenges could be an excellent talking point at University interview later on. There are plenty of other courses and materials available, but those listed above are effective, reliable and free.

There is a [CS reading list](#) available on Firefly, some of these books are already in the school library, others are on order. They are all good reads! You might also like to consider reading magazines like PC Pro to get a background feel for current technologies. Back copies are available in the library.

Please also visit [my website](#) for lots more resources and links.

D A T Fraser