

## Computing Taster Tasks: Also see the Documents on OPGS Website

### A Level Computer Science Summer Work Pack

Included in this pack are the following activities:

Title of Tasks	Purpose of Task	Time to be taken	Outcome Expected
Theory of Computation	Consolidate prior knowledge of: <ul style="list-style-type: none"><li>• Boolean Logic</li><li>• Programming Concepts</li><li>• Data Representation</li><li>• Computer Systems</li><li>• Networking</li></ul>	~2 hours	Score of 80% plus on each of the interactive quizzes  <i>Use the HINT buttons to access supporting content if you are struggling</i>
Programming	Consolidate prior programming knowledge and understand the level of programming ability required at A Level	~5 hrs <i>This activity will be introduced on the taster day</i>	Completed code analysis document and programming activity
Wider reading and extension	Develop your understanding of how Computer Science Theory fits into the wider world perspective	∞	A good general knowledge of current developments in the subject. Be prepared for discussions in class in September.

### Theory of Computation

- Please create an account at Isaac computer science using this link <https://isaaccomputerscience.org/account?authToken=62MBK4>
- Once you have signed in you will have access to sections covering the following topics (click "For Students, Topics").
  - Boolean Logic
  - Programming Concepts
  - Data Representation
  - Computer Systems
  - Networking
- Refresh your memory by reading through the relevant sections
- Complete the quiz for each of these sections (accessible via the assignments tab)

- To 'pass' this section of the summer work pack you need to score a minimum of 80% in each quiz

## Programming

- Download the program source code and accompanying word document instructions.
- You can complete the task in either Pascal or Python (You can use both versions of the code to help you if you want!)

## Wider Research

### Twitter

Make an account if you haven't already. You do not have to post anything but it is an invaluable resource for accessing up to date information and articles.

Start by following our departmental account **@OPGSComputing** – interesting articles, courses, competitions, videos, and links can be found by searching through previous tweets and are updated regularly.

### Other sources

- **CS4FN** (Computer Science for Fun) is a magazine on computer science aimed at school students "Explore how computer science is also about people, solving puzzles, creativity, changing the future and, most of all, having fun." It is printed twice a year and has an associated website with additional articles. <http://www.cs4fn.org/>
- Free, online lectures and courses from **Academic Earth**. <https://academicearth.org/> You may find the maths section interesting as well as the Computer Science one.
- There are well over 300 **TED talks** related to computer science in general – if you have a few spare minutes they are worth dipping into, there is something to interest just about anybody! <https://www.ted.com/search?cat=videos&q=computer+science>