

Year 10 Computer Science Additional Homework Tasks

All **tasks** should be **evidenced** by screen snipping, or uploading to your OneNote exercise book (into the Homework section) or directly into your class theory exercise book.



1. Complete an activity from the Starters section of your OneNote exercise books – try out a Python Starter Challenge! Screen snip the evidence
1. Search for and watch the video, <i>OCR GCSE SLR1.8 Legislation relevant to Computer Science</i> at https://student.craigndave.org <ul style="list-style-type: none">Identify the titles of the relevant legislation and explain their key features
2. Test your knowledge of Python's Strings : <ul style="list-style-type: none">https://hourofpython.trinket.io/python-challenges#/string-challenges/lowercase-challengehttps://hourofpython.trinket.io/python-challenges#/string-challenges/uppercase-challengehttps://hourofpython.trinket.io/python-challenges#/string-challenges/number-of-things-challenge
3. Research Task: Carry out some research to find out the impact of e-waste on developing countries: <ul style="list-style-type: none">Prepare a summary report to outline the main problems associated with the disposal of old digital equipment.Outline any legislation that has been put in place to try and help prevent the illegal dumping of e-waste
4. Write an algorithm to show the steps in baking a cake. It should be annotated to show where, sequence , selection , and iteration have been used
5. Draw a flowchart for an algorithm to find the sum of 20 numbers and output the result. You will need to use the correct flowchart notation for this task.
6. An online store gives a discount of 15% for purchases of £200 and over, up to a <i>total</i> discount of £350 . Write an algorithm, in pseudocode , that would <i>allow a user to calculate</i> the discount . You can refer to your Edexcel pseudocode help sheet
7. Complete a programming task at https://snakify.org/en/ <ul style="list-style-type: none">Make notes to explain any new syntax you have used
8. Complete an hour of code in Python at: https://hourofpython.trinket.io/a-visual-introduction-to-python#/welcome/an-hour-of-code
9. What is the Digital Divide ? <ul style="list-style-type: none">What factors are considered to contribute to the digital divide in the UK?What factors are considered to contribute in a LEDC?
10. Create a one-page handout for your class to explain the difference between compilers and translators . <ul style="list-style-type: none">Try to think of a suitable analogy or mnemonic to help students remember the difference