

# A Level Bridging Work

## Computer Science

All students need to be reasonably fluent in the basics of a high level programming language in order to access the learning of the course. Whilst the aim of the Computer Science A Level is for you to be able to program in any language, understanding the core concepts, it is the Python language that we will be delivering as the primary source code.

In preparation for this, your task over the summer is to complete the task below:

### Task 1

Develop your understanding of the basics of programming using Python by completing the assessed tutorial at [www.codecademy.com/tracks/python](http://www.codecademy.com/tracks/python)

Make sure to sign up with an account so that it tracks your progress. I expect you to be able to show completion badges for the entire python task for the first lesson.

### Task 2

Develop a program using Python that solves the below brief, marks will be awarded for the completion of each bullet point so incomplete submissions will be accepted and graded accordingly.

Create a program in Python that will be used by the school to generate details about students' exam grades. The program should:

1. User input:
  - Ask for the student's first name and surname
  - Ask for the subject area
  - Ask for the student's target grade (between A-E)
  - Ask for the score for the paper
  - Ask for the maximum possible score for the paper
2. Work out the percentage achieved
3. Assign a grade between A - U to the paper, where E is 40% or over, D is 50% or over, C is 60% or over, etc.
4. Work out whether the student was above, below or on target and by how many grades
5. Output to the screen in the following style
  - Name: John Smith
  - Subject: Computer Science
  - Target: C
  - Achieved 35/50 = 70%, which is a grade B
  - This is ABOVE target by 1 grade
6. Output and append the same data to a file called "Results.txt"

Submit your program (yourname.py) to [rhersey@wellswayschool.com](mailto:rhersey@wellswayschool.com) and [rfuller@ikbacademy.org.uk](mailto:rfuller@ikbacademy.org.uk) with the subject line 'CompSci Induction' and arrive to the lesson ready to demonstrate and discuss the code you have created.