# **YEAR 11 TRANSITION** RESOURCES



Subject: Computer Science

Level: Level 3

Focus for this fortnight: Speed (and improve) your software

Please send questions / queries to: pharris@eastleigh.ac.uk

# **Knowledge**

You are making a game and it has various players. The game requires VARIABLES to hold and manipulate data including:

- HEALTH
- Date Of Birth
- GENDER (male or female only)
- 1. In terms of DATATYPE, what are the most appropriate ways to hold and manipulate the variables above?
- 2. How and where can the code be improved with comments?
- 3. Can you identify areas in the code that may raise errors? For example, when asking for user input the entry may be invalid

#### Sources:

- <u>Data</u>types
- <u>Datatypes</u>
- **Comments**
- **Errors**

## **Skills**

Following on from 'Knowledge' you have been asked to write a section of the game. Apply the 'theory' you have researched in the 'Knowledge' section using comments. You can use any software of your choice.

If possible, ask another student / pupil to review and test your code

### **Behaviours**

When writing code, using the correct datatypes, errors handling, and comments is very important. Read through the following case studies below.

Suggest how these three techniques and others that you are aware of (such as communication), could help solve or prevent the issues in the articles:

https://www.nasa.gov/content/hubblesmirror-flaw

https://blog.bitsrc.io/software-is-not-perfectcases-of-software-failure-and-theirconsequences-f5fec39c038f



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