# Yr 8.4 Assessment Grid-Python Programming

| | *Skill* | | *Knowledge* | |
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| | **Practical Skill**<br>Range and quality of ICT & programming skills and techniques | **Analysing and evaluating**<br>Identifying areas for improvement and identifying where issues have developed and ways to resolve this. Both in their own work and others. | **Theory**<br>Talking about Computational thinking and making IT connections in the real world . | **Computational thinking Level**<br>Computational thinking allows us to take a complex problem, understand what the problem is and develop possible solutions. We can then present these solutions in a way that a computer, a human, or both, can understand. |
| Exceptional<br>GCSE 8-9 in Y11 | Fluent In:<br>● Can consistently build python programmes to solve problems<br>● Can make use of a range of commands consistently including the basics (Input/Output, IF Statement, variable use, arithmetic, while loop, for loop). This will include some use of functions | Fluent In:<br>● Identifying how complex python programmes can be improved to ensure they are most efficient.<br>● Can consistently explain to others their programmes and what each command does<br>● Can begin to debug programmes and can identify common errors | Fluent In:<br>● Can define each command consistently<br>● Can consistently explain python programmes link to programming and pseudocode<br>● Using the correct terminology consistently<br>● Linking the use of these and esafety considerations consistently | Fluent In:<br>● Understanding complex scenarios and converting them into python programmes consistently<br>● Understanding how basic python programming links to pseudo code and therefore can introduce basic python programming |
| Higher<br>GCSE 6-8 in Y11 | Secure In:<br>● Can build standard python based programmes to solve problems confidently<br>● Can make use of a range of commands confidently including the basics (Input/Output, IF Statement, variable use, arithmetic, for loop). This may include some guided use of functions. | Secure In:<br>● Can confidently improve python programmes to improve efficiency.<br>● Can confidently explain to others their programme<br>● Can at times identify errors in their own programme | Secure In:<br>● Can define each command with confidence<br>● Can explain how python programmes link to programming and pseudocode but may need support.<br>● Using the correct terminology sometimes<br>● Linking the use of these and esafety considerations consistently | Secure In:<br>● Understanding standard scenarios and converting them into python programming confidently<br>● Understanding how data flow diagrams link to pseudo code |
| Intermediate<br>GCSE 4-6 in Y11 | Growing In:<br>● Can build simple data flow diagrams to solve scenarios with guidance | Growing In:<br>● With prompts can make improvements to existing standard python programmes | Growing In:<br>● Can define two basic commands from python programmes | Growing In:<br>● Understanding simple scenarios and can convert them into python programmes with guidance |

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| | • Can make use of a range of commands including the basics (Input/Output, IF Statement, variable use, arithmetic) guidance maybe needed | • Explaining to others with prompts what their python programme does<br>• With prompts can identify errors in their own programme | • They understand how commands can be used to write a python programme<br>• Using the correct terminology occasionally<br>• Linking the use of these and esafety considerations consistently | • Can define pseudocode but struggles to link it to python programming. |
| Foundation<br>GCSE 2-4 in Y11 | Emerging In:<br>• Can build basic data flow diagrams to solve basic scenarios with support<br>• Can make use of 3 basic commands (Input/Output, IF Statement, variable use) but struggles to apply them without support. | Emerging In:<br>• With support can explain their basic python programme<br>• With support they may identify simple errors in their programmes | Emerging In:<br>• Can define one command from the python programme<br>• With support can understand how basic commands define how the python moves around the screen<br>• Using the correct terminology rarely<br>• Linking the use of these and esafety considerations rarely | Emerging In:<br>• Understanding simple scenarios and can convert them into python programmes with support |

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| **Outstanding** | Making outstanding progress relative to their starting point **(almost meeting expectations for next starting point)** |
| **Above** | Making more than expected progress relative to their starting point **(consistently meeting all expectations)** |
| **Expected** | Making expected progress relative to their starting point **(mostly meeting expectations for this starting point)** |
| **Working towards** | Working towards expected progress for their starting point **(below assigned starting point expectations consistently)** |