|  |  |  |  |
| --- | --- | --- | --- |
| **Core Knowledge Map** | | | |
| Subject: Computer Science | Year: 8 | | Term: 1.0 |
| What are we learning? | | | |
| How to stay safe online  How to use text-based programming with Python | | | |
| How will I be assessed | | | |
| There will be a checklist of things you have learned for you to fill in. You will create an ‘evidence presentation’ showing the work you have done in Python | | | |
| Big questions: | | | |
| What is a programming language?  Why do we need high level languages and what is machine code?  What are the main concepts of programming | | | |
| How does this build on previous learning? | | How will this link to my future learning? | |
| This builds on the introductory programming languages like Kodu and Scratch, to a fully text-based language. | | The text based language is the fundamental building block of computer science, and this introduction will link you to coding practice throughout your Computer Science education | |
| Core knowledge: | | Key vocabulary: | |
| How to open the Python IDE (IDLE)   * Creating a new Python file * Running a program * “Hello World!”   How to input and output using Python code   * print() * input()   How to put commands in the correct order   * Sequencing   How to use loops to repeat tasks   * For and while loops * Fixed and conditional loops   How to make choices within your code   * ‘if’ statements to compare data | | print()  Sequencing  Iteration  Selection  Variable  Constant  Process  Procedure  Function  Loop/repeat  Choice  If  While  Else  For  elif | |
| Need more help? | | | |
| 1. [Welcome to Python.org](https://www.python.org/) 2. [Introduction to Python (w3schools.com)](https://www.w3schools.com/python/python_intro.asp) | | | |