Bishop Heber High School

Subject	Year	Term
Computer Science	8	1

Topic

Python and understanding computers

Content (Intent)

Prior Learning (Topic) Small basic

Basic syntax of Python. Students will learn how to type in code to manipulate strings, output text, process data, store the result of processing in a file. How to sequence a set of instructions into a coherent program that takes input, processes and outputs

Understanding computers. They should understand how the different components of a computer system operate, including how binary works, what is software and what is hardware, why computers are sometimes slow, what the various numbers such Ghz, Gbytes, mean, what is value for money, what is needed for different tasks.

Future Learning (Topic) Flowol and Kodu

What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)
Students will be taught the basic operations of Python such as variables, if statement, iteration. They will be expected to use functions to return values and to create simple programs to accomplish outputs.	Homework's in the homework book, end of year test. The homework will focus on the use of functions and problem-solving using Python code, explaining what will be output. Grading will be based on accuracy of prediction.
Students will be taught how computers use binary to do calculations and how binary controls image, sound. Input, output and processing, peripherals. How the CPU works, in general terms.	Homework's in homework book, end of year test. They will be graded based on how well they understand terms like the capacity of memory, speed of CPU, how well they interpret binary, how they can understand binary controls many aspects of computer operation.

How can parents help at home?

Ensure that students do their homework on time.

Helpful further reading/discussion (including Reading and Vocabulary Lists)

Reading

Learn Python syntax
www.codeacademy.com

Hardware and software
https://www.bbc.com/bitesize/topics/zmpsgk7

Vocabulary Lists

Device
External
Transfer
Assess
Communication
Concatenation, variable,
Selection