YEAR 6 6.2 - Python Introduction

Computing Area	Computer Science
National Curriculum Strands	• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
Skills Progression Points	• Understand the importance of planning, testing and correcting algorithms. • Demonstrate a range of different strategies to solve a problem including: abstraction, decomposition, logic & evaluation. • Understand why sequence & patterns are important when creating simple algorithms that are part of a more complex program. • Gives reasoning for each step within algorithms and applying them to a program. • Use a variable to increase programming possibilities. • Use a variable and relational operators (e.g. < = >) within a loop to stop a program. • Evaluate the effectiveness and efficiency of an algorithm while continually testing the programming. • Use logical reasoning to predict and debug more complex programs including: selection, variables and operators.
Hardware	Laptops/Desktop PC/iPads
Software/App	Edublocks website
Unit Objective	To compare block based programming to written code. To introduce Python as a text based method of programming
Unit Vocabulary	Sequence, Selection, Iteration, Loop, Variable, Conditional Statement, RGB values, Function