



Year Five and Six Programme B		Topic – Coding (Computer Science)	Term: Autumn 1
Key Learning To design a playable game with a timer and a score. To plan and use selection and variables. To understand how the launch command works. To use functions and understand why they are useful. To understand how functions are created and called. To use flowcharts to create and debug code. To create a simulation of a room in which devices can be controlled. To understand how user input can be used in a program. To understand how 2Code can be used to make a text-adventure game		Key Vocabulary Action - Types of commands, which are run on an object. They could be used to move an object or change a property. Alert - This is a type of output. It shows a pop-up of text on the screen. Algorithm - a precise step by step set of instructions used to solve a problem or achieve an objective. Flowchart Bug - A problem in a computer program that stops it working the way it was designed. Code Design – Design what a program will look like and what it will do. Command - A single instruction in a computer program. Control - These commands determine whether parts of the program will run, how often and sometimes, when. Debug/Debugging - Looking for any problems in the code, fixing and testing them. Event – Something that causes a block of code to be run. Function – A type of procedure or routine. Get Input - This puts the text that a user types into the computer’s temporary memory to be used to control the program flow. If - A conditional command. This tests a statement. If the condition is true, then the commands inside the block will be run. If/Else - A conditional command. This tests a statement. If the condition is true, then the commands inside the ‘if block’ will be run. If the condition is not met, then the commands inside the ‘else block’ are run. Input - Information going into the computer. Can include moving or clicking the mouse, using the keyboard, swiping and tilting the device. Output - Information that comes out of the computer e.g. sound. Object - An element in a computer program that can be changed using actions or properties. In 2Code, buttons, characters and vehicles are types of objects. Repeat - This command can be used to make a block of commands run a set number of times or forever. Sequence - This is when a computer program runs commands in order. In 2Code this can also include “repeat” or a timer. Selection - This is a conditional/decision command. When selection is used, a program will choose a different outcome depending on a condition. Simulation - A model that represents a real or imaginary situation. Tabs – Allows you to move between blocks of code on different pages Timer - Use this command to run a block of commands after a timed delay or at regular intervals. Variable – A named area in computer memory. A variable has a name	
Key Skills Computer Science ► Know how search engines work and what ‘ranking’ is when related to search engines. ► Design and create more complex programs using sequence, repetition, selection and variables appropriately. ► Develop their computational thinking can demonstrate that they can decompose and evaluate their tasks and correct errors in their algorithms and programs.		Learning Links Y5 Efficient Coding Simulating a Physical System Decomposition and Abstraction Friction and Functions Introducing Strings Text Variables and Concatenation	