



Year Five and Six Programme A		Topic – Coding (Computer Science)	Term: Autumn 1
Key Learning To begin to simplify code. To create a playable game. To understand what a simulation is. To program a simulation using 2Code. To know what decomposition and abstraction are in computer science. To take a real-life situation, decompose it and think about the level of abstraction. To understand how to use friction in code. To begin to understand what a function is and how functions work in code. To understand what the different variables types are and how they are used differently. To understand how to create a string. To understand what concatenation is and how it works.		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. 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. Design Mode - Used to create the look of a 2Code computer program when it is run. Event – Something that causes a block of code to be run. 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. 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 and a value. The program can change this variable value.	
Key Skills Computer Science ► Design and write programs using sequence, repetition, selection and variables. ► Develop greater understanding of how to use selection and repetition in more complex programs.		Learning Links Y4 Code, test, debug process IF statements Repeat Until and IF/ ELSE Statements Number Variables Y6 Using Functions Flowcharts and Control Simulations User Input	