

# Year 5 – Coding

## Knowledge Organiser



Key Learning
<ul style="list-style-type: none"> <li>To represent a program design and algorithm.</li> <li>To create a program that simulates a physical system using decomposition.</li> <li>To explore string and text variable types so that the most appropriate can be used in programs.</li> <li>To use the Launch command in 2Code Gorilla</li> <li>To program a playable game with timers and scorepad.</li> </ul>

Key Resources

Key Vocabulary	Definition
<b>Sequence</b>	This is when a computer program runs commands in order. In 2Code this can also include "repeat" or a timer.

Images			
Open the main menu 	Save your work 	Add a new tab to your code 	Creating a variable in 2Code Gorilla 
Open design mode 	Switch to code mode 	The launch command block 	Example of combining variables and strings to print to the screen 
A change variable block 			

Questions	
<b>What does simulating a physical system mean?</b>	<ul style="list-style-type: none"> <li>Creating a program where the objects behave as they would in the real world.</li> <li>For example, a football program that uses angles, speed and friction to simulate kicking a football. When simulating a physical system, you first must break the system down into parts that can be coded (decomposition).</li> <li>The different parts will come together to make the full simulation.</li> </ul>
<b>Describe how you would use variables to make a timer countdown and a scorepad for a game.</b>	<ul style="list-style-type: none"> <li>Timer countdown: Create a timer variable and set it to the starting number of seconds. Add a Timer command that repeats and subtracts 1 every second. Add a text object in design view to display this number.</li> <li>Score: create a variable to store the score, each time the user gains a point, change and display the value of the variable.</li> </ul>
<b>Give examples of how you could use the Launch command in 2Code.</b>	<ul style="list-style-type: none"> <li>Clicking on a button or other object in the program to opens another 2Code program or a webpage.</li> </ul>