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| **Year 5 Autumn 2 – Coding** |
| **Key Images**  | **Key Learning** |
|  | * To represent a program design and algorithm.
* To create a program that simulates a physical system using decomposition.
* To explore string and text variable types so that the most appropriate can be used in programs.
* To use the Launch command in 2Code Gorilla
* To program a playable game with timers and scorepad.
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| **Key Vocabulary** | **Key Questions** |
| * Action
* Alert
* Algorithm
* Bug
* Code Design
* Command
* Control
* Debug/Debugging
* Design Mode
* Event
* Get Input
* If
* If/Else
* Input
* Output
* Object
* Repeat
* Sequence
* Selection
* Simulation
* Timer
* Variable
 | **What does simulating a physical system mean?**Creating a program where the objects behave as they would in the real world. 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). The different parts will come together to make the full simulation.**Describe how you would use variables to make a timer countdown and a scorepad for a game.**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.Score: create a variable to store the score, each time the user gains a point, change and display the value of the variable.**Give examples of how you could use the Launch command in 2Code.**Clicking on a button or other object in the program to open another 2Code program or a webpage. |

Reference to