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| **Year 3 Autumn 2 – Coding** |
| **Key Images**  | **Key Learning** |
|  | * To design algorithms using flowcharts.
* To design an algorithm that represents a physical system, and code this representation.
* To use selection in coding with the ‘if’ command.
* To understand and use variables in 2Code.
* To deepen understanding of the difference between timers and repeat commands.
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| **Key Vocabulary** | **Key Questions** |
| * Action
* Algorithm
* Bug
* Code Block
* Code Design
* Command
* Control
* Debug/Debugging
* Design Mode
* Event
* If
* Input
* Output
* Object
* Properties
* Repeat
* Computer Simulation
* Selection
* Timer
* Variable
 | **What is the difference between the different object types in 2Code Gibbon level?**The different objects have different properties. This makes then suitable for different type of programs.* Buttons can only be clicked and have their colour and text changed.
* Vehicles have speed and angle.
* Characters have movement in 4 directions
* Turtles have rotation, pen up and down.

**What does selection mean in coding and how can you achieve this in 2Code?**The code will contain commands that require a decision and the next code to run will depend upon the outcome of this decision. In 2Code we used the ‘if’ command for selection.**Give an example of how you could use a variable in coding.**Some examples are:* A timer that counts every second and displays the value.
* A value that changes depending upon whether a switch is on or off.
* Storing how many times a user has clicked on an object.
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Reference to