



**Computing Topic:** Coding 3.1

**Year: 3 Term:** Autumn 1

## Key Knowledge/Content Coding:

- To understand what a flowchart is and how flowcharts are used in computer programming.
- To understand that there are different types of timers and select the right type for purpose.
- To understand how to use the repeat command.
- To understand the importance of nesting.
- To design and create an interactive scene.

## Key vocabulary with definition:

### Prior Vocabulary Coding:

- Instructions - Detailed information about how something should be done or operated.
- Object - Items in a program that can be given instructions to move or change in some way (action).
- Output Information that comes out of the computer e.g. sound-
- Properties - These determine the look and size of an object. Each object has properties such as the image, scale and position of the object.
- Run - Clicking the Play button to make the computer respond to the code.
- Action - Types of commands, which are run on an object. They could be used to move an object or change a property. 2Dos Free code chimp Tools
- Background - In 2Code the background is an image in the design that does not change.
- Algorithm - A precise step by step set of instructions used to solve a problem or achieve an objective.

### New Vocabulary Coding:

- Bug - A problem in a computer program that stops it working the way it was designed.
- Button - A type of object that responds to being clicked on.
- Debug/Debugging - Fixing code that has errors so that the code will run the way it was designed to.
- Command - A single instruction in a computer program.
- Collision Detection- Event The event of two objects colliding.
- Code - Writing the code for a computer program.
- Click Event- An event that is triggered when the user clicks on an object.
- Action - The way that objects change when programmed to do so. For example, move or change a property.

## Links to:

### Prior learning:

Coding within year 1 and 2.

### Future learning:

Progression of coding is seen throughout school.

## By the end of this unit

**All children can:** **design** and **code** a program that follows a simple sequence

**Most children can:** **use** their programs, showing that they are thinking of the structure of a simple program in logical, achievable steps with attention to specific events that initiate specific actions

**Some children can:** **explain** the choice of commands they have included in their program and what they achieve

## Background understanding for teachers and parents:

Children have a clear idea of how to design and code a program that follows a simple sequence. Children experiment with the use of timers to achieve delay effects in their programs they understand the difference between timer-after and timer-every commands.

## Curriculum Driver (one):

Knowledge of the World

### Evidence outcome:

Children understand how coding is implemented across the world. Including uses of remote controls, use of technologies, keyboards and mouses.